ARMY Communicator

Voice of the Signal Regiment • PB 11-07-4 Fall 2007 Vol. 32 No. 4

REGIMENTAL RoadMap FOR FUTURE OPERATIONS








Plus: The Regiment welcomes BG Jeffrey W. Foley as new Chief of Signal

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
2007		**00-00-2007 to 00-00-2007**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Army Communicator. Voice of the Signal Regiment. Vol. 32 No. 4, Fall 2007	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **U.S. Army Signal Center and Fort Gordon,Army Communicator,ATTN: ATZH-POM,Fort Gordon,GA,30905-5301**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**48**	

Chief of Signal's Comments

SRCP – road map to shape future of regiment

Fellow Signaleers!

I am excited to be back at Fort Gordon as your Chief of Signal! Just four years ago, I was serving as the Chief of Staff for the U.S. Army Signal Center and Fort Gordon, and it's great to be back among so many familiar and friendly faces.

Although much at our regimental home has remained the same, I also see tremendous positive and needed change: our nation and our Army are engaged in the Global War on Terrorism and our Regiment is transforming to better support the fight.

The Signal Regiment Campaign Plan is the road map we will use to shape the future of our regiment. We are in the process of updating the SRCP to ensure full alignment with other relevant documents such as the Training and Doctrine Command Campaign Plan and the Army Chief Information Officer/G6 500-Day Plan. Our campaign objectives are:

- **Provide the force with world-class Soldiers and leaders**
- **Train, educate, and develop adaptive professionals**
- **Plan, synchronize, and implement future information technology capabilities**

We continue to pursue some other exciting changes here at the Signal Center and I'll highlight just a few.

For the first time, we are starting to provide opportunities for Soldiers, non-commissioned officers, warrant officers, and officers to train as a combined team in a tactical operations center centric environment here at Fort Gordon. The intent is to familiarize them with the stress, action, and tempo of a TOC before they face this challenge in real world operations.

Both the Advanced NCO and Basic NCO's courses will be reduced to eight weeks. Much of the information formerly presented in the resident phase is now available through Distance Learning to take prior to arrival at the schoolhouse. We also streamlined the courses to replace material deemed redundant or irrelevant with input from lessons learned downrange and course critiques from graduating classes. Not only do the new courses provide a rather intense and more relevant learning environment, but it allows Soldiers to spend more time with their families and it minimizes the impact to an operational unit losing those critical NCOs to attend schools.

Our LandWarNet eUniversity currently supports more than 54,000 students. We provide downloadable training products that are tailorable to fit the evolving needs of commanders. We provide more than two gigabytes of training material and information to Soldiers and units deployed in Afghanistan, Iraq, and Kuwait. Our goal is to establish a "virtual unit university" that can be tailored for each signal organization as well as for S6 personnel in transforming Army brigade units.

We will reinvigorate the Director of Information Management Training Course at Fort Gordon. DOIMs are important organizations that provide critical command, control, communication, and computer support to all Army operations. This course will provide each DOIM the opportunity to receive training that educates them and ensures a common understanding of where we are going and how the DOIM can better support their warfighters. The "installation as a docking station" concept must become a reality in order to provide warfighters the information capability that they require before, during, and after deployment. I envision that this DOIM course will facilitate the foundation for the installation as a docking station concept.

A related effort in this area is the establishment of the five Network Service Centers-Regionals that will enable the connectivity of the Warfighter Information Network-Tactical Increment 1 (formerly known as the Joint Network Node) Network to the Defense Switched Network and other Army Network Services. The NSC-R is virtually composed of Area Processing Centers, Fixed Regional Hub Nodes and Theater Network Operations and Security Centers that will ultimately provide the linkage from the Generating Force to the Operating Force though all phases of operations and enable the Army to fight upon arrival.

In closing, we are aggressively pursuing future capabilities for the force because we know, without a doubt, that we must move forward, stay agile, and get ready for the next fight.

See you on the high ground!

BG Jeff Foley
Army Strong!

BG Jeffery W. Foley
Chief of Signal

... our nation and our Army are engaged in the Global War on Terrorism and our Regiment is transforming to better support the fight.

The Signal Regiment Campaign Plan is the road map we will use to shape the future of our regiment.

U.S. ARMY SIGNAL CENTER AND FORT GORDON

Worldwide web homepage address http://www.gordon.army.mil/AC/
E-mail ACeditor@gordon.army.mil

PB 11-07-4
Fall 2007
Vol. 32 No. 4

Army Communicator

Voice of the Signal Regiment

Table of Contents

Features

Cover: Regimental Roadmap for future operations will be in the Signal Regimental Campaign Plan. Cover by Billy Cheney

Departments

Army Communicator (ISSN 0362-5745) (USPS 305-470) is an authorized, official quarterly professional bulletin of the U.S. Army Signal Center, Fort Gordon, Ga. 30905-5301. Second-class official mail postage paid by Department of the Army (DOD 314) at Augusta, Ga. 30901 and additional mailing offices.

POSTMASTER: Send address changes to ***Army Communicator***, U.S. Army Signal Center, Fort Gordon, Ga. 30905-5301.

OFFICIAL DISTRIBUTION: ***Army Communicator*** is available to all Signal and Signal-related units, including staff agencies and service schools. Written requests for the magazine should be submitted to Editor, ***Army Communicator,*** U.S. Army Signal Center, Fort Gordon, Ga. 30905-5301.

This publication presents professional information, but the views expressed herein are those of the authors, not the Department of Defense or its elements. The content does not necessarily reflect the official U.S. Army position and does not change or supersede any information in other official U.S. Army publications. Use of news items constitutes neither affirmation of their accuracy nor product endorsement.

Army Communicator reserves the right to edit material.

CORRESPONDENCE: Address all correspondence to ***Army Communicator,*** U.S. Army Signal Center and Fort Gordon, Signal Towers (Building 29808), Room 713, Fort Gordon, Ga. 30905-5301. Telephone DSN 780-7204 or commercial (706) 791-7204. Fax number (706) 791-3917.

Unless otherwise stated, material does not represent official policy, thinking, or endorsement by an agency of the U.S. Army. This publication contains no advertising.

U.S. Government Printing Office: 1984-746-045/1429-S.

Official:
JOYCE E. MORROW
Administrative Assistant to the Secretary of the Army

0708003

By Order of the Secretary of the Army:

GEORGE W. CASEY JR.
General, United States Army
Chief of Staff

Eighth U.S. Army hosts 2007 LandWarNet Training Conference

Above: BG (P) Randy Strong addresses the 2007 Eighth Army LandWarNet Training Conference held at Yongsan's Main Post Club April 17-19.

The Eighth Army LandWarNet Training conference is one of the highlights of the year for training and updating Information Technology Specialists in Korea on the state of the Global LandWarNet. BG (P) Strong U.S. Army Signal School and Center and LTG Valcourt, commanding general, Eighth Army were two of the many high level guest speakers who spoke at the 2007 LandWarNet Conference.

By James M. Hancy

The Network Enterprise Technology Command Regional Chief Information Office - Korea conducted a three-day LandWarNet training conference at Yongsan, Seoul, Korea April 17-19, co-sponsored by the Signal Corps Regimental Association.

About 150 information technology specialists, both Soldiers and Department of the Army civilians, participated in the training. The purpose of the conference was to train key IT personnel on the latest tactics, techniques, and procedures for network and enterprise service management, information assurance, information dissemination management, visual information, and records management.

LandWarNet is the United States Army's global enterprise network that supports all communications in support of command and control of warfighting operations as well as the Army's daily business.

Just as Soldiers need the best equipment and training to be successful on the battlefield, a steady flow of information is just as vital. Connecting Soldiers to information they need, whenever they need it and wherever they are is the job of the LandWarNet.

The latest information was presented through 34 separate training sessions during the three days. The first day, Eighth U.S. Army Commanding General LTG David P. Valcourt, addressed participants stating the importance of LandWarNet as a weapons system that must be carefully planned, tested, and ready to support the Warfighter. Valcourt emphasized the importance of the LandWarNet for command and control of forces throughout the spectrum of conflict and his unconditional support for Information Assurance and Network Security.

On the second day of the conference, Strong briefed the Signal Regiment Campaign Plan for the LandWarNet. The general focused on enabling knowledge dominance for the warfighter by planning for and adapting to technological change as the Army transforms.

The final day ended with a LandWarNet Jeopardy game that tested the participants' knowledge from the training sessions and awarded prizes to those competing which reinforced the training.

In his closing remarks, COL Brian Moore, 1st Signal Brigade commander and Eighth U.S. Army chief information officer emphasized the importance of attending professional development such as the

LandWarNet Training Conference. " The knowledge, skills, and abilities learned at these events are key to supporting commanders with LandWarNet command and control communications as they accomplish their dynamic peacekeeping and deterrence mission in Korea, as well as, staying prepared for any contingency in Korea or anywhere in the world."

Mr. Hancy is with the Regional Chief Information Office, Republic of Korea.

ACRONYM QUICKSCAN

IT – Information Technology
SCRA – Signal Corps Regimental Association

Instructors team with Project Manager

Modernizing the 25P schoolhouse

By Stephen Larsen

For the first time in decades, the hundreds of Soldiers who annually take the 25P Microwave Systems Operator-Maintainer course at the U.S. Army Signal Center can get hands-on training using the same state-of-the-art commercial-off-the-shelf equipment they'll encounter in the field – thanks to the completion of a four-year modernization of the classroom equipment by the 25P instructor staff with a little help from their friends at the Product Manager, Defense Wide Transmission Systems, part of the Project Manager, Defense Communications and Army Transmission Systems.

The $10.4 million hardware upgrade has stocked the 25P classrooms with the same modern equipment that Soldiers in the 25P military occupational specialty will install, configure, operate, and maintain in military technical control facilities around the world – including data communications equipment, Integrated Data Network Service/Promina multiservice access platforms, encryption devices, Internet Protocol switch/alarm systems, asynchronous transfer mode/synchronous optical networking switching, microwave radios and matrix switching.

"It's a night-and-day difference from the old, grey, mechanical 'MIL-Standard' equipment we previously had," said Ronald Schumpf, chief of the 15th Signal Brigade's Switching, Transmission and Microwave Systems Division. "The old equipment had manual dials, switches, and patching, and there was just wire – spaghetti – everywhere. It was like we were still teaching black and white TV while (those on) the field were running around with Dick Tracy TV wrist watches."

The 25P course had fallen behind, according to Schumpf and training specialist Clyde Page, because of the proliferation of commercial-off-the-shelf equipment used worldwide in military tech control facilities – the communications hubs of installations – had outpaced the process used to define requirements and program money

Training specialist Clyde Page (right) and instructor SFC Michael Bonhomme (center) point out to Eileen Francesconi of the Product Manager, Defense Wide Transmission Systems some of the modern commercial-off-the-shelf equipment that PM DWTS helped provide to train Soldiers in the 25P Microwave Systems Operator-Maintainer course at the U.S. Army Signal Center, Fort Gordon, Ga.

for those requirements for the schoolhouse.

"The COTS explosion was quicker than what was documented in the ORD (Operational Requirements Document) for new equipment in the classrooms," said Page. "By the time we POMed (submitted a Program Objectives Memorandum, the basis for budgeting money in Department of Defense) and programmed money for it, the equipment requirements were obsolete and shot down – and understandably so."

Collaboration with many

Schumpf said the solution was the result of a "brainstorm" Page had in 2004, when he was a non-commissioned officer instructor in the-then 31P Microwave Systems Operator-Maintainer course (the 31P MOS was re-designated the 25P MOS in a recent restructuring of Army military occupational specialties). Page, said Schumpf, took it upon himself to design state-of-the-art classrooms and then devise out-of-the-box methods to acquire the modern equipment to stock the classrooms.

"Mr. Page is a wonder, his brainstorm is behind the modern networks in today's classrooms," said Schumpf. "He worked tirelessly to design and engineer how the rooms should be equipped, where every wire should be, and then he worked out innovative ways to acquire the equipment."

Page is quick to deflect credit for the upgrade. "This was accomplished only by collaborating with many, many others – the instructors, staff, and the training developers and commanders in the 15th Signal Brigade," he said, adding that he first encountered the need when he was an NCO at a tech control facility in Kuwait and was astounded to find that Soldiers reporting to him were totally unfamiliar with the equipment they were supposed to operate and maintain.

"I'd have to spend a lot of time training them," said Page. "I'd ask myself, 'What do they teach these guys?' Then when I got here and saw the equipment they had in the schoolhouse, it hit me like a ton of bricks. We all knew we had to do something about it."

Instructor SFC Rodolfo Fuentes (right) describes the operation of equipment in a classroom of the 25P course at the U.S. Army Signal Center, Fort Gordon, Ga. to LTC Clyde Richards (left), the Product Manager, Defense Wide Transmission Systems. PM DWTS teamed with the instructors of the 25P course to modernize the equipment so Soldiers could get hands-on training on the same type of equipment they will encounter in worldwide tech control facilities.

Page said the catalyst that sparked the process was when the course chiefs learned that about $6 million worth of surplus equipment from the Pentagon renovation was available for the 25P course's use.

"That was the true trigger that put the goal of updating the course within reach," said Page.

They added to that windfall about $462,000 funding from Fort Gordon and $2.6 million from the U.S. Army Training and Doctrine Command. Then Page and the course chiefs contacted PM DWTS, which filled in the gaps and contributed $1.3 million in equipment and installation and training services.

"The 25P instructors and the 518th Tactical Installation Networking Company also pitched in," said Schumpf, "rolling up their sleeves and contributing some 20 man-years of work to install the new equipment. The 25P instructors did this on their own time, in addition to teaching their full course loads – and those guys from the 518th were amazing, they put this place together for us."

On June 20, LTC Clyde Richards, the PM DWTS, and Eileen Francesconi, PM DWTS' project leader for the 25P modernization project, met with COL. Frank Penha, commander of the 15th Signal Brigade, Schumpf, Page and the instructors of the 25P course. Schumpf and Page explained to them that in 2001, TRADOC's Critical Task/Site Selection Board had identified 35 critical tasks that a Microwave Systems Operator-Maintainer needs to be trained to accomplish, but that the course was able to train to the standard in only 16 of these 35 tasks – only 46 percent. Now, thanks to the 25P course modernization, they are able to train to the standard in 32 of 35 critical tasks – up to 91 percent. But that 91 percent is misleading, because of the remaining three tasks, one task is on equipment which can't be obtained because it is obsolete; another task calls for training on equipment which they do not have, but the point is moot because, due to fiscal

Instructor SFC Michael Bonhomme (center) oversees as students PVT James Byerly (left), PVT Marlese Meysing (second from left) and PVT Jeremy Smith (right) configure the communications equipment in a portable data package, emulating the comms equipment in a tent out in the field.

restraints, TRACOC prohibits the "course growth" needed to train it; and the third task, they can't cannot devote time to, because, again, it would require "course growth" – but they expect this task to disappear from the curriculum when the next CT/SSB is held. So they have, for all intents and purpose, achieved 100 percent in training to standard for the critical tasks of a 25P.

Penha thanked Richards and Francesconi for their help in solving "the age old problem" of properly training Soldiers. Richards pledged to continue to do all that he could. "This is a significant part of the equation of what a PM needs to do," said Richards. "We can't just field equipment – Soldiers need to be trained on the equipment they're going to use in the fight."

"Without the help of DCATS/DWTS, we would not be able to do this," said Schumpf.

"I'll do anything I can to help – I can't see sending Soldiers to assignments without the right training, not when their lives can depend on it," said Francesconi – "and the lives of others," added Page.

A modern training facility that can emulate what field commanders use or need

Schumpf, Page, and the 25P instructors then took Richards and Francesconi on a tour of the 25P classrooms, culminating in the room containing what they call the "ICTS" – Integrated Communications Transmissions System – which includes all the equipment a Soldier would find in a modern tech control facility. "You know those charts where there's a cloud that represents the GIG (Global Information Grid)?" asked Page. "Well in the ICTS, we've 'drawn out' the networks in that cloud with actual equipment and can emulate those networks here."

Students SGT Sean Diemler, PVT Eric Sheese, and PVT Ronald Desoto were configuring the system in the ICTS so they could communicate with a "data package," a portable system at the other end of the building that simulated comms out in a field environment.

"This practical exercise is like a final exam," said Page. "Their whole mission with this training scenario is to get the two internet protocol routers to talk to each other – the router here and the router in the data package, which is with another group of Soldiers down the hall, but for all intents and purposes, it could be five miles down the road in a tent."

Thanks to the training they were receiving, Diemler, Sheese, and Desoto felt confident they could do their jobs as 25P's when they reached the field. "I feel I've gained a lot of knowledge," said Sheese. "The instructors are great, both civilian and military."

Were they aware how lucky they were to be among the first Soldiers trained on this equipment, the actual equipment they would encounter in the field, instead of old MIL-Standard dinosaur-age boxes on which previous classes trained? Yes, said Desoto, explaining "An instructor told us how, when he got to the field years ago, they sat him down with a stack of TMs (technical manuals) and said, 'Ok, you have two days to get this Tech Control Facility up and running.' So we've definitely got it a lot better than that."

Where does the 25P course go from here? Page said the 15th Signal Brigade personnel were continuing to refine both the lesson plans and hardware installation and awaiting the results from the upcoming CT/SSB before recommending additional changes. In the short-term, they were seeking SONET subject matter expertise for lesson plan development, and that PM DWTS was helping by providing Instructor and Key Personnel training – sort of training the trainers – so the 25P instructors could properly train the new SONET equipment to the students.

According to Page, they have engineered and installed the new systems in the 25P classes so they can support system interconnection with a wide variety of equipment used by other MOSs – the 25F Network Switching Systems Operator-Maintainer, 25N Nodal Network Systems Operator-Maintainer, and

Left to right: PVT Ronald Desoto, PVT Eric Sheese and SGT Sean Diemler configure the Integrated Communications Transmissions System – emulating a tech control facility – so it can communicate with the comms in the portable data package.

25Q Multi-channel Transmission Systems Operator-Maintainer, as well as by the Advanced Noncommissioned Officers Course, the Basic Noncommissioned Officers Course and the warrant officers course – based on availability.

"The big picture…?" Page asked himself. "One, we now have a modern facility that can emulate, in a training environment, exactly what those commanders use or need in the field. And two – a possible scenario – we could support a deploying unit that wanted to configure and test their equipment. If they pulled up with their JNN (Joint Network Node), they could receive simulated NIPRNET (Non-secure Internet Protocol Router Network), SIPRNET (Secret Internet Protocol Router Network) and DSN (Defense Switched Network) access – it's possible because of what we've installed."

For now, they have to grow into their new capabilities and see where those capabilities can take them, keeping their eyes on their target of training the best signal Soldiers in the world.

"In the training world, with this new equipment, we're at the relative stage of development of an adolescent," said Page. "Thanks to PM DWTS, we have everything we need now to become an adult; we just need a little time to figure out the world around us and how to best train the Soldier."

Mr. Larsen ia a public affairs officer with Program Manager, Defense Communications and Army Transmission Systems, Fort Monmouth, N.J.

Acronym QuickScan

ATM – asynchronous transfer mode
COTS – commercial-off-the-shelf
CT – Critical Task
DoD – Department of Defense
DSN – Defense Switched Network
GIG – Global Information Grid
IDNX – Integrated Data Network Service
IKP – Instructor and Key Personnel
ICTS – Integrated Communications Transmission Systems
IP – internet protocol
JNN – Joint Network Node
MOS – military occupational specialty
NCO – non-commissioned officer
NIPRNET – Non-secure Internet Protocol Router Network
ORD – Operational Requirements Document
PM DCATS – Defense Communications and Army Transmission Systems
PM DWTS – Product Manager, Defense Wide Transmission Systems
POMed – Program Objectives Memorandum
SIPRNET – Secret Internet Protocol Router Network
SONET – synchronous optical networking
SSB – Site Selection Board
TM – training manual
TRADOC – Training and Doctrine Command

Four Distinguished Members inducted at LandWarNet Conference

By Susan Wood

BG Jeffrey W. Foley, Chief of Signal, with the assistance of CSM Michael Terry, Regimental Command Sergeant Major, inducted four new Distinguished Members of the Regiment in a ceremony held Aug. 23, 2007, during the LandWarNet Conference in Fort Lauderdale, Fla.

The Distinguished Member program was established at the onset of Regimental Activation to recognize those personnel who made a special contribution and distinguished themselves in service to the Regiment. These distinguished member positions are also designed to promote and enhance the history and traditions of the Regiment and foster cohesion among its members.

A summary of the prestigious careers of our four newest Distinguished Members follows.

Elizabeth Patten

Elizabeth Patten has distinguished herself for more than 27 years in service to the Signal Regiment. Her leadership, strategic thinking and vision have been at the forefront of Regimental change and transformation. Patten has been at the heart of reshaping the design of Signal formations across the Regiment since the post Cold War era through digitization to the modular force.

She has been instrumental in forging a partnership between the Signal Center, the Chief Information Office/G6 staff and Network Enterprise Technology Command. These partnerships have driven force structure changes and the fielding of communications systems that have significantly improved the Regiment's ability to provide command, control, communications, computers, and intelligence to the warfighter during times of significant change for the Army. Patten was at the center of transformation to include Joint Network Node and the expeditionary Signal battalions. She gained senior leadership endorsement and resourcing accelerating capability to the field years before it was programmed. She is currently involved in the transformation of Army Signal forces supporting every combatant com-

BG Jeffery W. Foley presents the Distinguished Member award to Elizabeth Patten.

BG Jeffery W. Foley presents the Distinguished Member award to CW4 (Retired) Curley Avant.

BG Jeffery W. Foley presents the Distinguished Member award to MG (Retired) Jerry Brohm.

BG Jeffery W. Foley presents the Distinguished Member award to LTG (Retired) David J. Kelley.

CW4 (Retired) Curley Avant

CW4 (Retired) Curley Avant entered the Army in 1968 and deployed to Vietnam with the 1ST Signal Brigade immediately following Advanced Individual Training. He was appointed to warrant officer in 1980, serving in a variety of positions. While he was assigned to the Office Chief of Signal, He served as the personnel proponent coordinator for more than 1,000 Signal warrants where he spearheaded the complete restructure of Signal warrant officer military occupational specialties, and developed the first standard of grade authorization to support the coding of all warrant positions with a rank and a skill.

After his retirement in 1998, Avant worked for Raytheon Systems Engineer, assigned to the multi-service tri-band SHF tactical terminal program. He now works for Lockheed Martin Space System Engineer in the MILSTAR Program.

MG (Retired) Jerry Brohm

MG Jerry Brohm retired from the United States Army in 1998 with 31 years of service. Tours included duty as a platoon leader in Vietnam, commander 143rd Signal Battalion, commander 93rd Signal Brigade, and deputy commander U.S. Army Signal Center. His final assignment was as commanding general, U.S. Army Communications-Electronics Command and Fort Monmouth.

In this position, Brohm led the Army's Center for the development and support of all communications, command and control, automation, intelligence, electronic warfare sensor systems used by the U.S. Army. He commanded 11,000 Soldiers and civilians and managed an annual budget of more than $2 billion. He was recognized as a leader in acquisition reform.

After retirement he joined Information Network System as chief operating officer and was promoted to president in 2001. He then joined Lockheed Martin as a vice president of information technology. He is currently employed with U.S. Falcon as the chief executive officer. In this capacity, he continues to serve the needs of Soldiers. Because of his ongoing contributions to the communications field and his commitment to Soldiers, BG Foley inducted him into as a Distinguished Member.

LTG (Retired) David J. Kelley

LTG (Retired) David J. Kelley began his military career as a platoon leader, then as company commander with the 32nd Signal Battalion. Later assignments included commander, B Company, then the 596th Signal Company of the 63rd Signal Battalion, 1st Signal Brigade, Vietnam, commander, 13th Signal Battalion, commander, 93rd Signal Brigade, and deputy commander, U.S. Army Signal Center, Fort Gordon. His final assignment was as the director of the Defense Information Systems Agency, where he served with true vision and decisiveness. After 34 years of stellar military service, Kelley retired and joined Lockheed-Martin Corporation where he continues to serve the military's information technology development and to set the standards that have made him a Distinguished Member of the Signal Regiment.

Ms. Wood serves as the chief of the Regimental Division, Office Chief of Signal, Fort Gordon, Ga.

ACRONYM QUICKSCAN

AIT – Advanced Individual Training
C4I – command, control, communications, computers, and intelligence
INS – Information Network System
JNN – Joint Network Node

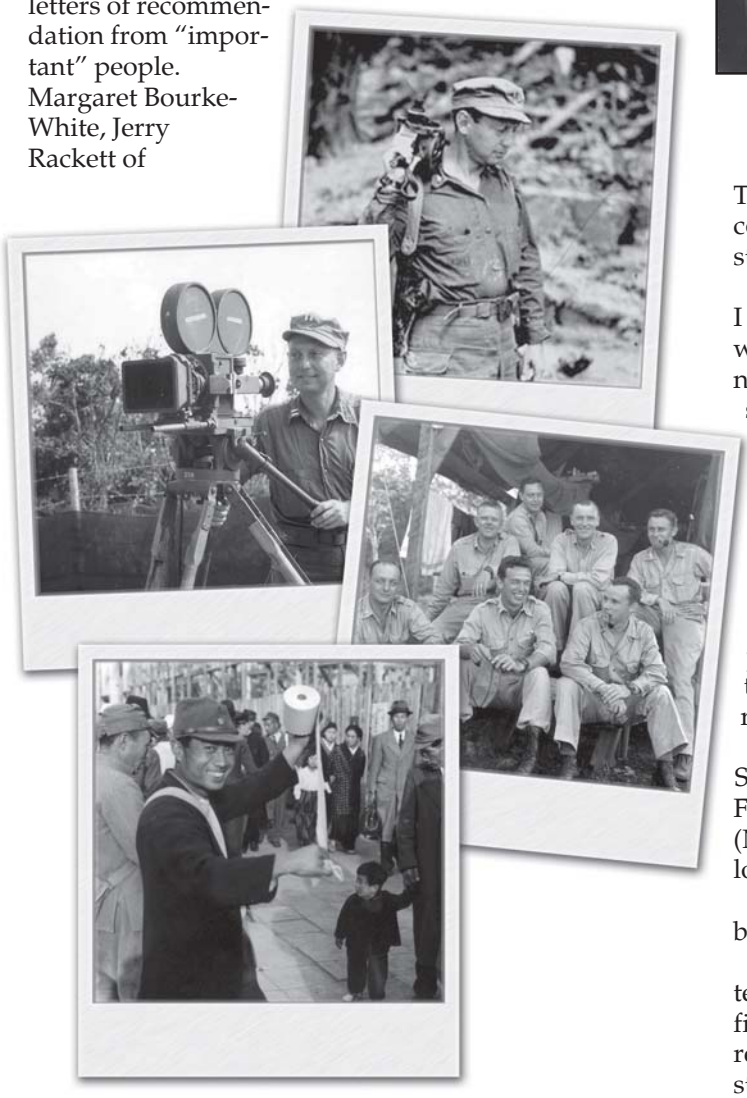
WWII photographer Peter Keane recounts living Signal Corps history

By Peter Keane

Editor's Note: *Peter Keane and his remembrance of his service for the Signal Corps is conversational in tone, as it was written for his children. Some first names of the World War II military personnel are not recalled by the author and thus not included.*

(Above) Peter Keane and World War II members of Signal Unit A.

Soon after Pearl Harbor, I went to Fort Monmouth, N.J., and offered my services in photography to the Army Signal Corps. Because of my photographic experience and the fact that I had taken ROTC (Reserve Officer Training Corps) at college, I was offered a direct commission in the Army. I had to fill out many forms and get information from Cornell. Also, I had to get letters of recommendation from "important" people. Margaret Bourke-White, Jerry Rackett of Technicolor, and Navy Commander Edward Steichen cooperated. (In fact, Steichen wrote on his own Navy stationery.)



With all this sent to the adjutant at Fort Monmouth, I was told to wait for a reply from Washington. After six weeks I phoned the adjutant and obtained the phone number of the officer in Washington to whom he had sent all my papers. I called that number and spoke to an officer who actually looked up my file and told me that it would take several weeks more for an answer. I made that call around 5 or 6 p.m. and I believe that there was a change of shift very soon after that (because of what happened next).

I think my file had been left at the top of the pile so that when the next shift officer came on duty he picked up my application and processed it. (I believe this is what occurred) because the next morning I received a telegram addressed to LT M. P. Keane.

With the telegram, I went as ordered to the new Signal Corps Photo Center occupying the old Lasky Famous Players Studio (Paramount) in Long Island City, (N.Y.). (The building is still there and it is the present location of the Museum of the Moving Image.)

Afterwards, I went to Saks Fifth Avenue and bought the complete (Army) uniform.

At the Signal Corps Photo Center I was, for eighteen months, the assistant officer in charge of training film production. That was largely a desk job and required reporting progress of some 400 films in various stages of production to the General Chief Signal Officer

THE NEW YORK TIMES, SUNDAY, JUNE 25, 1944.

WAR-NEWS FILMS

Contrasting 'Attack! The Battle of New Britain' and the Invasion Newsreels

By BOSLEY CROWTHER

IT is more than a little amazing that the most impressive war-news film of the past three weeks has been "Attack! The Battle of New Britain," the War Department's report on a six-month-old event. And the reason it is so amazing is that this fifty-four-minute document arrived almost simultaneously with the first invasion newsreels. You would think, considering the moment, that the invasion pictures would pack more punch than any other news film, no matter how eloquent it might be, and that a lengthier picture, especially, would pale by comparison. Yet "Attack! The Battle of New Britain" is the one that knocks you out of your seat, while the clips on the Normandy invasion have had no more than moderate sock.

This odd and surprising contradiction may be reasonably explained by a number of observations, which we will herewith proceed to make. And we don't want to give the impression that we are not disposed toward them ourself. But behind them, still challenging argument, is the growing suspicion that the screen, by its physical nature, is unsuited to "spot news" reporting today. And, more particularly, there is the constant evidence that our present commercial structure for handling films is not geared to offer the public an aggressively journalistic screen. Keep this in mind. We'll come to it after stating the affirmative's side.

Clearly and Whole

The most obvious explanation for the sharply anomalous fact that "Attack! The Battle of New Britain" has it all over the invasion newsreels is that it happens to be a fine picture in every possible way. It is a frank, graphic, lucid illustration of an amphibious operation from beginning to end, photographed in most eloquent detail and put together with exceptional skill. It was filmed by Signal Corps photographers—and by Army Air Force camera men—who went from the staging areas right onto the beaches with the troops that stormed Arawe and Cape Gloucester last December in a historic thrust. Their cameras caught all the grimness and reality of those assaults—the attitudes of men in landing barges, the beachhead charge, the toil of jungle infighting. They caught the whole thing—the strength of character of those American fighting men, the breathless excitement of actual battle, the hard realization of death. And this film gives a smashing conception of modern warfare on those far Pacific isles, of the perils and sacrifices of our young fighters thousands of empty miles from home.

It Still Happens

Obviously a picture of this nature is going to hit you between the eyes, packed as it is with action and dramatic reality. But more than that it is currently momentous, quite apart from the history it records, because of the present operations on Saipan and on islands elsewhere. Change the names (which make no difference to folks who are geographically dull) and these same things may be happening this minute somewhere out there beyond the seas.

Furthermore, this War Department picture is the first comprehensive screen report on a beachhead operation, and as such it has great immediacy. The earlier "With the Marines at Tarawa" was a slashing, breath-taking two-reel film, which left a sobering impression of a beachhead landing and its cost. But it lacked the patient thoroughness and reflection of this new film. "Attack! The Battle of New Britain" is the "Desert Victory" of this year.

Those are pretty good reasons for the present pre-eminence of this film over the Normandy invasion newsreels. It might now be remarked that the latter are an inadequate illustration of the nature and immensity of the blow. Except for one tense and vivid sequence, photographed from a landing boat as it ran its men onto a drab beach, the lot of the films seemed strangely routine. They were no more than unrelated glimpses of a vast action which remains to be disclosed.

Mechanics

And that brings us down to the question of whether the screen, dependent as it is upon transport and other physical factors, is able to do a quick reporting job. The Normandy invasion pictures had to pass through censorship, be flown to this country and then edited, with sound tracks prepared, before being shown. By that time most of the same scenes had been published here in still photographs. And even then there was little opportunity—or inclination—to give the films a "story line." Scenes were variously lumped together in newsreel fashion, with commentaries—and that was all.

And further, the Normandy pic-

of the Army in Washington.

Every two weeks I would alternate with a colonel delivering the completed films to Washington for final approval. While at SCPC, I met a number of friends from Hollywood who had been drafted and others who, because of professional film experience, were given direct commissions: Jesse Lasky Jr., Franklyn Coen, Jerry Hopper, Garland Meisner. In fact, I supplied the names of other Hollywood friends who, after being drafted, contacted me for help in getting assigned to our photo unit.

Our personnel officer took my list of such names and went to California with authorization to select them for SCPC. Fred Detmers and Charlies Benes of Technicolor were among those. Also with my job at SCPC, I was tasked to prepare a monthly progress report of all of our training film projects. This took several stenographers many days to type the constant changes in each subject. I designed a graph that would show each project's progress with a line that would rise sharply if the progress from script writing to photography through editing and all the film laboratory stages occurred without delay. Years later I learned that the graph system still was in use.

After a year I was reassigned to expedite camera and developing equipment to be located and shipped overseas. This was done at a control center near Philadelphia. Also, I was assigned to prepare a table of equipment for a new unit to be sent to Australia to join COL Bob Presnell, who was assigned to GEN (Douglas) MacArthur. In fact, I was in charge of that unit even though there were officers of higher rank. My job was to assure the delivery of my 70 crates to Brisbane and safeguard from confiscation enroute.

In Australia, I was assigned to select a motion picture processing laboratory to process all motion picture footage from our unit. In Sydney, I selected a lab called Cinesound, where I found they were not washing the film properly after the hypo and I had to procure Revers Lendlease Funds for additional tanks for that lab. Under COL Bob Presnell, we produced a 28-minute film of the action in New Britain, titled *The Battle for New Britain* which was used to open the Fifth War Bond Drive in the United States.

Among the crew that produced this film were Jesse Lasky Jr., the son of one of the founders of the movie industry; Bud Small, son of the famous director; Jack Hively, son of a well-known movie editor; and others.

After approval by MacArthur's Signal General, Stanley Akin, Presnell took the negative to Hollywood to prepare for release to the theatres. This film was re-released with the same title but with added footage from the Air Force and Navy. It was re-edited on videotape and released on TV. The credits on the tape were only for the people involved with the video tape and there was no mention of Presnell, Lasky, and Hively.

While in Sydney we had the good fortune of meeting a number of (significant) people. The first was Neal Ackland who had a job representing in Australia the American movie film producers and who was most helpful in advising us on the best ways to get cooperation from the local companies and government officials. I met Neal in New York when he was on a trip to meet the movie producers. I met him again about 30 years later when HBO (Home Box Office) sent me to Australia during the production of *All Rivers Run*. Neal was in contact

with Cecelia Presnell, COL Bob's wife. From her I learned a year or so later that Neal had died.

Another local contact was American Consul Palmer and his wife, Eno, who had a great recipe for a party drink which was served to me on a very hot Christmas Eve: one quart of vanilla ice cream and one quart of gin.

With that job done I was sent to Port Morsby in New Guinea and then to Finchhaven on the north coast. While there I took a still camerman to Arawe at the south end of New Britain, (which was) recently captured from the Japanese. The Signal officer there sent us immediately by small boat north to Gasmata where the Japanese had built an airfield and now had just retreated towards Rabaul at the northern end of the island. On arrival as Gasmata at dusk we found an Army unit reclaiming Japanese anti-aircraft guns and leaving at once. A coded radio message was received at that moment addressed to me ordering me back to Finchhaven.

By coded reply I requested to be picked up by a PT (Patrol Torpedo) boat which I knew were making nightly raids on Rabaul. I needed one day to complete the picture assignment and then asked to be picked up the following morning. At the time I expected the PT boat I found we could not launch our own small craft because of low tide. Using "pidgin" English, I got the services of some natives in a dugout canoe. When, after hours of waiting in the open water, the PT boat did not come, we returned ashore and found we could now launch our own boat. We rode back toward Arawe, arriving at the large fuel tank for the PT boats late that day.

The next morning we heard the arrival of the PT boat we had expected the day before. The commander of the PT boat called out my name and explained that Rabaul no longer had targets for PT torpedoes and so they had not run the day before. The commander was most courteous showing me the very powerful twin engines that moved the PT boat with great speed and speaking in a very broad Boston accent he offered me a meal in his tiny galley. (Since then) I have forgotten his name.

Arriving at Finchhaven, I was told to attend a meeting with LTG (Walter) Krueger at which he outlined the landing order for all photographers and newsmen for the next assault on Hollandia, about 100 miles west. This was to be a leapfrog operation bypassing Aitape which was know to contain many Japanese soldiers.

Hollandia was not strongly defended and our landing was easy under the heavy bombardment from our Navy. However, after two days unloading tanks, fuel, ammo, and all other supplies, the Japanese sent one small plane at night and dropped a stick of their bombs right onto our fuel and ammo. The result was a "Fourth of July" explosion and fire for two days on the beach. Fortunately, I had moved my unit off the beach the afternoon before. We then set off following the infantry moving inland until we were stopped by a continuous barrage from the enemy who fired air-bursting shells ahead of us. It was late in the day when we were stopped by that barrage. Everyone watched the show but to get a better view I climbed up on one of our DUKWs (WWII six-wheeled amphibious trucks, commonly known as "Ducks"). Then the Japanese changed the timing on their fuses and shells burst right over us. Since I was exposed and heard the whizzing of a shell fragment, I started to get down from the deck of the DUKW which was about 8' off the ground. In doing so, I put out my hand and touched the hot fragment burning my hand slightly. I still have that fragment. The next day we advanced by DUKWs on Lake Santini, thus avoiding the road where we were halted the day before.

The DUKWs landed us at a dirt road leading to the airstrips. On the ground were many aluminum curved strips with larger lumps at each end. These were about 3" long. The infantrymen, seeing these, called out, "Mines!" (then) left the road, and struggled in the swamp bordering the road. I had been told that these aluminum strips came off our own anti-personnel bombs. I took my crew with me along the road, not entirely trusting my information, and avoided stepping on or near the aluminum strips.

With no resistance we reached

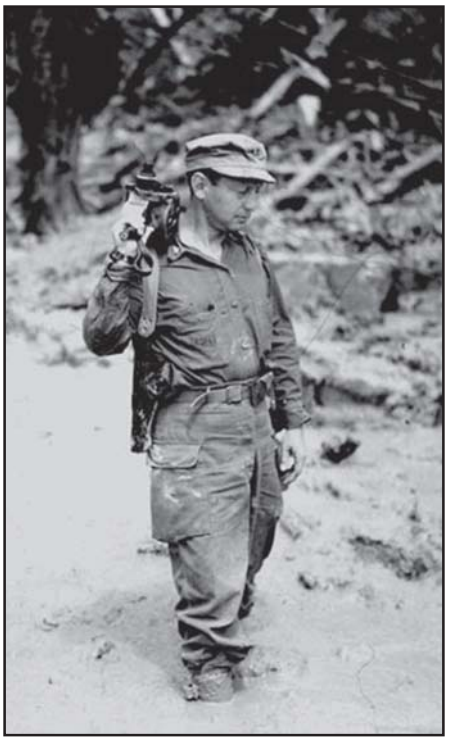
the small airfields built by the enemy. The ground was full of holes caused by our bombs dropped in advance of our landing. Until the arrival of machines our troops filled in the holes with entrenching tools. A few days later, after we settled at the airfield, someone again came shouting, "The area was mined!" I went to look with the man who brought the alarm and saw that these again were the aluminum strips just lying on the surface. I took my knife and slowly slid it under the strip to make certain it was not being used as a booby trap. When my knife met no resistance, not being attached to a buried bomb, I picked up the aluminum strip and tossed it away.

The people watching scattered and then later remarked that I was involved in the most dangerous service, bomb disposal. Little did they know that I was just a photographer. Our unit spent two weeks taking movies and still pictures by which time our own planes could land and I arranged to fly my men back to Finchhaven.

There I learned that Lenny Fields, an old family friend, was on a landing ship tank as chief petty officer. His LST was one of the many supplying us at Hollandia. We had a fine reunion and I arranged the film showing on his LST of the movie that had just been completed in Sydney called *The Battle for New Britain*, the subject of this film having involved Lenny's LST only a few months earlier. The film print was made from a dupe 16mm negative made from the work print, since COL Bob Presnell had taken the 35mm negative to the states.

I was then ordered back to Sydney to organize a production unit to produce a newsreel for MacArthur's troops to be sent to the fronts every two weeks. I hired civilian film workers to assist the Army Signal Corps to develop, edit, narrate, and record sound for this project. I needed a standard opening sound fanfare to head each bi-monthly edition. I obtained the services of a Soldier in Special Forces who was a graduate of Juilliard. He composed the fanfare with parts for all the instruments for the Sydney Symphony which I hired to record the piece. His name was Di Cong Lee.

After the second newsreel was finished, I had orders to fly to Honolulu to join Frank Capra who was planning a major film covering the Central Pacific action. By that time we had new personnel from the States. COL Presnell, who also was assgned to the Capra unit, and I laid out the disposition of our several units and went to the Navy for assignment of these units to various ships. As Bob was outlining our plan the rear admiral he was talking to suddenly shouted, "You don't tell us, we tell you!" The several units went to sea presumably headed for the island of Truk. While (We were) enroute, the General Staff in Washington turned over the whole operation to MacArthur for his landing on Leyte in the Philippines.



Peter Keane standing in the mud with a camera. Photo taken in New Guinea circa 1942.

At that news, Bob asked me to drive him to Pearl Harbor for a meeting with Admiral Chester W. Nimitz. I waited outside the Nimitz office and when Bob came out he quoted Nimitz's response: "What's the matter, son? Did they pull out the war from under you?"

With Capra's project eliminated, he returned to the states and I was given the task of making a film for the local Army general since the negatives of actions under the Honolulu general were already at the Signal Corps Photo Lab in Long Island City. I took a large relief map of the island of Anguar and much written material back to New York to produce a film eventually titled *Action on Anguar*.

When it was completed I took the print back to Honolulu for GEN Richardson. The next month was spent organizing another special unit, which included captains: Charles Kaufman, Len Hammon, Cullen Landis, Lieutenants: Wilfred Zogbaum, Bill Galloway, and SGT Burt Reinhardt, who many years later became president of CNN (Cable News Network) in Atlanta.

While I was finishing the production of *Action on Anguar*, COL Barrett, commanding officer of the SCPC, remembered that more than a year before he had proposed me for promotion to captain which was not approved only because of the standing rule that anyone on orders to another unit cannot be promoted. Now that I was back under his command he immediately prepared the papers for my promotion.

However, by the time those papers got to Washington I had completed *Anguar* and was on orders to present the film to GEN Richardson in Honolulu. COL Barrett then gave me orders to go to Washington and present "my case" to GEN Lyman Munson the CO of the Photo Division of the Signal Corps. In Washington, GEN Munson reviewed the fact that there were already three captains in Honolulu assigned to this new unit although the unit was designed for only one captain. At that point I called to his attention that CPT Kaufman was a professional Hollywood script writer and not best used at the front in combat photography. The same for CPT Len Hammon, and the general agreed they should be brought back to the states.

GEN Munson thought that CPT Landis seemed right for the job until I pointed out that Cullen was an old silent movie film star and was at least 10 years older than the general. Some time later Cullen also was recalled.

This time I was given sound recording equipment as well as professional movie cameras. The unit was most unusual: six specialist enlisted men and eight officers who were trained as directors, writers, and sound recording specialists. In the middle of April, 1945, we landed on Okinawa. We spent over four months shooting scenes for rough scripts on a variety of subjects. The films were to be used in the states to make completed movies.

On Okinawa there were nightly kamikaze raids including having our camp strafed by low-flying enemy planes. Bill Galloway, who was my executive officer, was reading a book in our light-proof tent and somehow turned the gas refill cap instead of turning off the light. The escaping gas under pressure blew up the tent. The ball of flame caught the attention of a Japanese plane who dipped down and strafed where the tent had been. The plane was flying from my right to my left and only his right wing gun was firing. I could clearly see bullets hitting the ground in front of me. When the tent blew up Bill ran out as I was running toward him. I kicked his legs out from under him throwing him to the ground, and rolled him in the dirt to put out his burning clothes. I then had Bill evacuated to a hospital on another island. He returned a few weeks later, all recovered.

At one point on Okinawa we ran low on photographic supplies. I learned that the Navy had a freighter anchored off our island as a supply ship. I got orders to obtain what we needed and took a small boat out to the supply ship. After selecting what we needed, I was invited to spend the night on board. I was given my first decent meal in weeks, a hot shower, and a comfortable bunk. I also was told that should an alert occur I was to move to a position underneath the raised forward gun platform.

At dawn the next morning an alarm was given. I dressed and ran to my assigned post. Within a few minutes, a single enemy plane came toward us and all the guns on all the nearby ships started firing. The plane kept coming straight toward our ship but then turned, looking for a better target. As the plane passed to our right the ships to our left kept firing with their shells almost going through our rigging. Finally, the plane was hit and went down into the water. As the gun above me was in action, the hot shell casings were dropped around my feet, something that really kept me dancing.

My unit also was supplied with a movie projector and except during raids, we ran a theatre for all the nearby troops showing entertain-

ment films from Hollywood.

After a few weeks I received a wire from the Office of the Chief Signal Officer in the Pentagon promoting me to captain. I had two previous promotions that were cancelled each time I was ordered to move to a new theatre of operations, first when I was ordered to Australia and then when I was ordered back to Honololu after completing *Action on Anguar*.

On Aug. 11, 1945, our Signal Corps monitoring station heard on Japanese radio the first information concerning the proposed surrender. The next day, a small Japanese plane landed on Kadena Yonton airfield and a tall Japanese officer carrying a bouquet of flowers approached one of our officers who was expecting the arrival. Our officer accepted the flowers, threw them to the ground, and then directed the Japanese officer to one of our larger planes to fly the officer to the Philippines to meet with GEN MacArthur. I believe that the actual surrender took place on the 14th *(Editor's Note: Aug. 14, 1945, Allies received the message from Japan accepting terms of surrender)*.

President (Harry S.) Truman sent a team of professional movietone cameramen to Okinawa to prepare for the signing of the formal surrender to take place on the battleship *Missouri* in Tokyo Bay (Sept. 2, 1945). I sent several of my crew with the new team by plane to Yokohama airfield. Then I signed off a number of heavy motor units and a generator before I could move the rest of my unit up to Japan on Sept. 4. There I did an on-camera interview with pictures and sound of Iva Tergay, the infamous Tokyo Rose.

After a few weeks I arranged to move my unit down to Nara. There I made up our photo assignments, forwarding the exposed film to the states (for processing). The local police assigned an interpreter to our unit. He was an older gentleman whose English was perfect, and in fact, he had graduated from Harvard, class of 1922. At first the local police housed us in the best hotel but soon the arrival of generals to this historic city moved us out. We were relocated to a real Japanese inn where we were required to remove our heavy Army boots before entering. My supply sergeant however, arranged exchanging food to have all of our meals at the main hotel.

The people at the inn were most friendly, perhaps because I insisted that every one of us respect the property of the inn. I have pictures of the inn and my room there. At one point I was interviewed by a reporter from an Osaka newspaper. We sat Japanese style on our folded legs around a fine low table. I wanted to keep up the position as I answered his questions, but after about 20 minutes I gave up the pretense, rolled off my legs, and that concluded the interview. When I finally left Nara the inn owners gave me a sake serving bottle and a set of tiny porcelain cups and saucers.

We were in Nara for about three months when I received orders to return to the states for separation from the military. I had been overseas a year longer than any of the others in my unit and had acquired many more discharge points. I was able to be home in time for Christmas 1945.

In all, I spent two years in the Pacific area starting in Australia, then New Guinea, New Britain, Honolulu, several of the islands, Ulithii, Guadalcanal, Johson, Guam, though some of these for only a short time. I am sure that Hollandia was the place where a special mosquito bit me. All of us took daily doses of Atabrine to ward off malaria and it worked as long as we continued taking the medicine. However, when I was transferred to Honolulu I was told that I could quit taking Atabrine. Just six weeks later I came down with a full blown case of malaria and was hospitalized at Kam Hospital which had been converted from a private boy's school in the hills above Honolulu. I was given Atabrine after discharge from the hospital but again quit taking it when I returned to the states to make *Action on Anguar*. Again, about six weeks later I found myself back at Kam Hospital. At my discharge from the hospital I was given a very large supply of Atabrine which lasted through Okinawa and when I returned to the states for actual separation from the Army. The malaria has never returned but I was ordered never to participate in a blood donor drive.

Acronym QuickScan

DUKW ("Ducks") – WWII six - wheeled amphibious vehicle
LST – landing ship tank
NYC – New York City
PT – Patrol Torpedo
SCPC – Signal Corps Photo Center

Peter Keane with his wife, Elizabeth.

Mr. Keane is a World War II Signal Corps veteran. He was born and raised in New York City. Photography has been his life-long interest. After graduation from high school he went on to Cornell where he graduated with a degree in Ornithology. He worked for a short time as Margaret Bourke-White's lab assistant in her studio in the Chrysler Building. He worked as a still photographer in New York city before going to Hollywood where he worked as an assistant cameraman at Technicolor on several films including Gone with the Wind, Wizard of Oz, and Robin Hood (with Errol Flynn). When the United States entered World War II, Peter received a direct commission and was assigned to the U.S. Army Signal Corps. After the war, he returned to NYC where he worked as a still photographer again. For several years, he worked for a series of companies in Hollywood and NYC. Eventually, he joined the fledgling Home Box Office and retired from HBO as director of tape quality control.

LandWarNet update

Updates from LandWarNet e-university for the Signal Regiment

LANDWARNET eUNIVERSITY BUILDS ON PARTNERSHIP WITH BATTLE COMMAND KNOWLEDGE SYSTEM

The Signal Center is expanding its knowledge management efforts by using LandWarNet-University to leverage the use of Battle Command Knowledge System professional forums as professional development tools for Army leaders. While the addition of BCKS professional forums to LWNe-U supports the Army's goal to provide an avenue for Soldiers to collaborate and exchange ideas in a "real time" environment; LWNe-U continues to offer expanded training capabilities to units at any point in the Army Force Generation Cycle through Extension Campuses and a variety of new equipment based simulations. Distributed learning opportunities offered via LWNe-U include training on some of the latest equipment being fielded. However, the Signal Center is going beyond just "offering" training opportunities, by working to ensure that Active and Reserve Component Soldiers as well as Department of the Army civilians and contractors within the Signal Corps have access to state-of-the-art digital training facilities equipped with the latest technology.

For more information on LandWarNet-eUniversity Forums; contact Michael Setzke, Knowledge Management Advisor, (contractor-BCKS), at michael.m.setzke@us.army.mil, DSN 780-8670 or commercial (706) 791-8670 or LTC Reginald Cray, chief LandWarNet-eUniversity at reginald.cray@us.army.mil, DSN 780-4800 or commercial 706-791-4800.

Unit universities now offer custom pre-deployment training for rotating units

The LWN-eU Extension Campus has greatly expanded its outreach program for deploying units. The extension campus coordinator will work with gaining units and commanders to create custom unit universities to support site specific training requirements. Currently, there are more than forty unit universities on the extension campus that provide sustainment training on Signal military occupational specialties, information technology, and communications equipment to active, Guard, Reserve, and joint services.

Recent unit university additions to the LWN-eU Extension Campus include: 35th Signal Brigade, 112th Signal Battalion, 36th Signal Battalion, 529th Signal Company, 101st Sustainment Brigade, 310th and 316th Expeditionary Sustainment Commands. Unit universities can deliver training that cannot be obtained locally to forces in ARFORGEN reset, sustainment, or deployed in theaters of operation. Individual Soldiers can access their unit university anywhere they can connect to the Internet.

Unit universities are created and hosted on the Blackboard Learning Content Management System. This system has built-in features that provide commanders and training managers the tools and ability to monitor, track, and assess training at the unit or individual Soldier level using the checks for learning developed by the unit. Unit universities give commanders and Soldiers a single location for accessing training that was developed by the Signal Center.

Examples of training content that can be immediately loaded onto a Unit University range from installing, operating and maintaining a Joint Network Node to navigate using the Defense Advanced Global Positioning System Receiver. All of the training content comes from the same program-of-instruction used for resident courses at Fort Gordon.

Also readily available on unit universities is quick access to professional forums and more than 500 downloadable products, interactive multimedia instruction, and computer-based trainings. Recent

and popular downloads include: AN/TSC-156A Phoenix Simulator, local area network/wide area network simulator, Force XXI Battle Command, brigade-and-below simulation, and single-channel ground-to-air radio system multimedia instruction.

For more information on, or to request a unit university, contact Floyd Orial, LWN-eU Signal Extension Campus Coordinator, (contractor: General Dynamics Information Technology), floyd.orial@us.army.mil, DSN 780-2571 or commercial (706) 791-2571.

State-of-the-art support for Army Force Generation

Interactive multi-media instruction greatly enhances and standardizes instruction for AC and RC units throughout the force when self development, sustainment, refresher, and remedial training are conducted.

The following virtual/PC based simulators are available or will be made available via LandWarNet eU (https://lwn.army.mil) and LandWarnet eU Signal (https://lwneusignal.army.mil) web portals to facilitate communications equipment operations training:

FIELDED SIMS

1. LAN/WAN
Fielded: APR 07
Target Audience: 25B, C, F, L, P, Q, S, U, W, 250N, 251A, 53A, 25A LT/ CPT

2. Phoenix (Version A)
Fielded: APR 07
Target Audience: 25S

3. SATCOM Hub (Spiral 5-7)
Fielded: MARCH 07
Target Audience: 25S

4. Baseband Hub (Spiral 2-4)
Fielded: FEB 06
Target Audience: 25N

5. JNN (Spiral 1)
Fielded: OCT 05
Target Audience: 25N

6. BN-CPN (Spiral 1)
Fielded: OCT 05
Target Audience: 25B

7. KU (Spiral 1)
Fielded: OCT 05
Target Audience: 25Q

8. DTOC
Fielded: OCT 05
Target Audience: 25B

9. TIMS (ISYSCON)
Fielded: OCT 05
Target Audience: 25B

10. HCLOS
Fielded: OCT 05
Target Audience: 25Q

11. GSC-52
Fielded: JAN 04
Target Audience: 25S

12. BSN
Fielded: OCT 04
Target Audience: 25F, Q, P

13. FBCB2
Fielded: OCT 03
Target Audience: 25U

14. TRC-173
Fielded: NOV 01
Target Audience: 25P, Q

15. 85/93
Target Audience: 25S

NEW SIMS UNDER DEVELOPMENT: FY08-FY09

1. SSS (V3)
Final Delivery –APR 08
Target Audience: 25N, 25F

2. Nodal Network
Projected fielding: SEPT 09
Target Audience: 25N, 25B, 25Q, 25S

3. S6 IDST
Projected fielding: DEC 08
Target Audience: 25A, FA53, 250N, 254A, 25U50

4. Phoenix Upgrades (Alpha Version)
Projected fielding: DEC 07
Target Audience: 25S

5. Phoenix Upgrades (Bravo Version)
Projected fielding: DEC 07
Target Audience: 25S

6. JNN Upgrades (Spiral 5-7)
Projected fielding: NOV 07
Target Audience: 25N

7. STT Upgrades (Spiral 5-7)
Projected fielding: NOV 07
Target Audience: 25S, 25Q

8. BNCPN Upgrades (Spiral 5-7)
Projected fielding: NOV 07
Target Audience: 25B

9. Baseband Hub Upgrades (Spiral 5-7)
Projected fielding: NOV 07
Target Audience: 25N

10. JNN Upgrades (Spiral 8)
Projected fielding: DEC 07
Target Audience: 25N

11. BNCPN Upgrades (Spiral 8)
Projected fielding: DEC 07
Target Audience: 25B

12. Baseband Hub Upgrades (Spiral 8)
Projected fielding: DEC 07
Target Audience: 25N

For more information on the status of interactive courseware and virtual/PC based simulator training products, contact Bennita Freeman, chief, Distance Education Branch at DSN 780-2303 or MAJ Chuck Dugle, chief, Simulations Branch at DSN 780-8681 or commercial at (706) 791-8681.

Acronym QuickScan

ARFORGEN – Army Force Generation
BCKS – Battle Command Knowledge System
CBT – computer-based training
DAGR – Defense Advanced GPS Receiver
dL – distributed learning
FBCB2 – Force XXI Battle Command, Brigade-and-Below
FY – fiscal year
GPS – Global Positioning System
ICW – Interactive Courseware
LAN – Local Area Network
LWN-eU – LandWarNet eUniversity
MOS – military occupational specialties
PC – personal computer
SCCC – Signal Captains Career Course
SINCGARS – Single-Channeled Ground-to-Air Radio Sysytem
TRADOC – Training and Doctrine Command
UIT – University of Information Technology
WAN – Wide Area Network

TCM update

Updates from Training and Doctrine Command capabilities managers for networks and services including satellite communications, tactical radio and Warfighter Information Network-Tactical

TCM-SNE

"Shadow" - Tactical Unmanned Aircraft System Communication Relay Package – Light

By Jeremy Vigna and Gene Cantrell

For years the aerial layer of LandWarNet existed only in white papers, Powerpoint presentations, and experiments. Now the amorphous aerial layer is finally beginning to crystallize. On June 26, 2007, a Shadow Tactical Unmanned Aircraft System was launched in Operation Iraqi Freedom with the first communications relay package – light installed on board.

The Shadow CRP-L provides single-channel ground and airborne radio system retransmission at altitudes up to 14,000 feet Mean Sea Level in order to extend the range of tactical communications. The CRP-L provides a brigade-level SINCGARS RETRANS that extends voice transmission ranges up to 170 kilometers.

The CRP-L was designed by the Prototype Integration Facility for the Program Manager, Unmanned Aircraft Systems at Redstone Arsenal, Ala. PM UAS fielded two systems to the 25th Infantry Division who will test them in an operational environment. The first two systems delivered to 25th ID represent a Phase I prototype interim solution. Phase II will be designed as an installable and removable kit that will be interchangeable between Shadow air vehicles. The design will allow for kits to become stay-behind equipment.

Warfighters are raving about the capability provided by the CRP-L. COL Patrick Stackpole, commander of the 3rd Brigade Combat Team, 25th ID, stated, "If you had been flying last week for the operation down south you would have been on the cover of *Aviation Magazine* this week. We really could have used [Shadow CRP-L]".

The Shadow Unmanned Aircraft System with Communications Relay Package – Light consists of two farings, one located on each tail boom, and inside each faring is a SINCGARS ASIP radio. Antennas are located on the end of each wing and are connected to the radios via cables that run through the wing.

The Army will add more capability to the aerial layer of the network in the near future. Programs such as the Extended Range Multipurpose UAS and future combat systems will deliver capability in the coming years to extend both legacy networks and future networks such as the joint tactical radio system and Warfighter Information Network – Tactical. For more information on aerial layer capabilities, contact Jeremy Vigna at DSN 780-7901 and email at jeremy.vigna@us.army.mil or Gene Cantrell at DSN 780-2307 and email at eugene.cantrell@us.army.mil.

Mr. Cantrell is a capabilities developer for the TRADOC Capability Manager for Satellite Communications & Network Extension. He is currently CDID project officer for Aerial Layer Network Transport Cmmunications.

Mr. Vigna is a capabilities developer for the TCM for SNE. He is currently the TCM SNE project officer for Tropospheric Scatter Radio Terminals and Aerial Communications Relay.

Acronym QuickScan

CRP-L – Communications Relay Package – Light
ID – Infantry Division
OIF – Operation Iraqi Freedom
PM – Program Manager
RETRANS – Retransmission
SINCGARS – Single Channel Ground and Airborne Radio System
TCM S&NE – TRADOC Capability Manager for Satellite Communications & Network Extension
UAS – Unmanned Aircraft System

TCM N&S AKMS Update

Army Key Management System 2007 Update

By Allen Walton and Allen Transou

The Army Key Management System is a fielded system composed of three sub-systems, local communication security management software, automated communications Engineering Software, and the Data Transfer Device with Common Tier 3 software. Product Manager Network Operations-Current Force has developed a DTD replacement, the simple key loader which is being fielded over a five year plan fiscal years 2005-2010. AKMS was fielded to the Army under the umbrella of the objective National Security Agency electronic key management system, the AKMS fielding has involved several LCMS software upgrades. LCMS version 5.1 is currently ongoing testing along with the common user application software that is a software application that will ride on LCMS and provide the capability to implement black key distribution.

LCMS and automated communications engineering software courses are two weeks in length and are available via the Army Training Requirements and Resources System. SKL training is available through Interactive Multimedia Instruction, provided as part of the fielding package. PdM NETOPS-CF and the Signal Center Directorate of Training are coordinating the development of an SKL POI to integrate into the courses where DTDs are taught as a peripheral device.

DoD key management infrastructure is a supporting infrastructure to generate, distribute and manage key products for the crypto inventory used to protect national security information. EKMS/AKMS will begin a transition to KMI beginning in fiscal year 2008 timeframe. KMI implementation is the steady rollout of capability increments, to deliver time-phased CIs toward end-state IA objectives consistent with the overarching global information grid and cryptographic modernization capability requirements. KMI CI-2 will be the first increment in creating a single framework for modernizing and unifying the management of keys used to encode and decode information for use by the DoD and civil agencies in war and peace-time. KMI is a critical foundation element for ensuring an adequate security posture for national security systems by providing transparent cryptographic capabilities consistent with operational imperatives and mission environments. The starting point for KMI CI-2 will be to leverage EKMS Phase V capabilities as a baseline. New capabilities have been identified and will aid in a transformation from the current key management infrastructure to a new paradigm for key management via net-centric operations (e.g. over the net keying. As the developer of KMI, NSA is responsible for developing a KMI transition plan in partnership with the Services. The transition plan will delineate how each component in EKMS will be replaced, modified or sustained as the new capabilities of CI-2 are introduced.

In the CI-2 timeframe, EKMS Tier 2 accounts are to be replaced by the KMI Client Node. KMI Client Node will provide all of the functional capabilities that the current Local Management Device/Key Processor provides (via new transport connecting to the Primary Service Node while adding new capability to support the net-centric operations. The new KMI Client Node and associated PRSN functionality is scheduled to be delivered early in CI-2 to facilitate the transition. By delivering this capability early, the Services can migrate to KMI, removing the need to operate two workstations to sustain operations. An end of life (targeted for Full Operational Capability of CI-2) for the LMD/KP node of EKMS is dependent on replacing the 1,400+ operational Tier 2 accounts. In CI-2, Tier 1 will continue to operate; however, as CI-2 moves from Spiral 1 to IOC, functionality of Tier 1 will be migrated to the new KMI components. Likewise, Tier 0 will continue to operate during CI-2, providing key generation support to the new KMI.

CI-2 is targeted to provide key provisioning services for networked ECU's to include:

- Provides initial ordering, delivery, accounting, etc. over the net
- Symmetric/asymmetric key to Internet Protocol based end cryptographic units
- Converges EKMS and KMI from the ECU and End User viewpoint
- Provides Suite A & B symmetric key via KMI Client
- Builds a foundation for CI-3 to enhance networked provisioning services

Acronym QuickScan

ACES – automated communications engineering software
AKMS – Army Key Management System
CI – capability increments
COMSEC – communications security
CT3 – common Tier 3
CUAS – common user application software
DTD – data transfer service
DoD – Department of Defense
ECU – end cryptographic unit
EKMS – electronic key management
FOC – Full Operational Capability
FY – fiscal year
IA – information assurance
KMI – key management infrastructure
KP – key processor
LCMS – Local COMSEC Management Software
LMD – local management device
NSA – National Security Agency
OTNK – over the net keying
PdM NETOPS-CF – Program Manager Network Operations-Current Force
POI – Program of Instruction
PRSN – Primary Service Node
SKL – simple key loader

In the CI-3 timeframe, the intention of the DoD Key Management Infrastructure Program Office is to discontinue the use of EKMS Tier 0 and Tier 1 operations once FOC for CI-3 is achieved (beyond FY 2015).

TCM N&S points of contacts for AKMS and KMI are Allen Walton or Allen Transou Benoit. Email waltona@gordon.army.mil, transoua@gordon.army.mil.

Mr. Walton is with TCM-N&S with the AKMS and KMI programs at Fort Gordon, Ga.

Mr. Transou is with TCM-N&S with the AKMS and KMI programs at Fort Gordon, Ga.

TCM N&S – JNMS update

Joint Network Management System – A Program Update

By William Righter and Billy Rogers

The Joint Network Management System program took a significant setback in February 2007 when the Air Force announced that they were pulling all funding support due to internal Air Force budget requirements to support higher Air Force priorities. The announcement came just weeks prior to the system completing a successful government assessment of its new hardware and software configuration baseline (Version 1.4). The new baseline separated the software planning and management functionalities and reduced the system's overall hardware footprint from seven transit cases of equipment (client/server based) to only a couple of laptop computers. These changes were user driven to accommodate operational employment and transportability concerns. Those units fielded earlier with the JNMS Version 1.3 software and hardware configurations were to be retrofitted with the new baseline beginning in April 2007.

LTC Ronald Jacobs, the Product Manager, Network Operations-Current Force at Fort Monmouth is moving forward with JNMS program restructuring as briefed to the Army's G6/G8, Signal Center and NETCOM; headquarters, U.S. Marine Corps; and Joint Staff J6. Program redirection efforts will change the management solution set to maximize land component force interoperability between the Army and Marines. The JNMS program now uses the same commercial-off-the-shelf network management application product named SNMPc® that is used in the Army's Joint Network Node program (now Increment 1 of the Warfighter Information Network-Tactical [WIN-T program]). Trouble ticketing requirements will be met by using the same Army's JNN/WIN-T COTS solution which is HEAT®. Network planning requirements will still be met using the current JNMS planning solution which a COTS product named Network Engineer®. The fielding of the latest JNMS baseline that was scheduled for April 2007 was delayed until June 2007 to allow time to make required contract modifications.

Currently, PdM NetOps-CF is reworking the fielding schedule and materiel release for resubmission and approval. The new baseline has been provided to the 11th Theater Tactical Signal Brigade to meet operational requirements in support of their Operation Iraqi Freedom rotation. The JNMS planning solution has been provided to the 335th Signal Command (Theater) to support their planning requirements for the biennial, Joint Chiefs of Staff directed, joint/coalition Bright Star exercise.

The Marine Corps has purchased and is fielding the Army's wide and local area network management solutions provided through the JNN program. They are planning on also purchasing and fielding the JNMS planning subsystem.

The Inter-Service Training Review Organization study that was conducted to determine the feasibility of consolidating all Service's resident JNMS training at Fort Gordon was approved in October 2006, but due to the changes within the program, it must be revalidated. The first iteration of JNMS resident training is now scheduled to begin in the first quarter of fiscal year 2009.

For further information on JNMS, contact William Righter or Billy Rogers, TRADOC Capabilities Manager Networks and Services, (706) 791-2721/2334, respectively. DSN prefix is 780. Email addresses are william.righter@us.army.mil or billy.w.rogers@us.army.mil.

Mr. Righter is a Department of the Army Telecommunications Specialist with the TRADOC Capabilities Manager Network and Services directorate.

Mr. Rogers is a contractor for DoD with the TCM N&S directorate.

Acronym QuickScan

COTS – commercial-off-the-shelf
ITRO – Inter-Service Training Review Organization
JCS – Joint Chiefs of Staff
JNMS – Joint Network Management System
JNN – Joint Network Node
LAN – local area network
NETCOM – Network Enterprise Command
PdM Net Ops-CF – Product Manager, Network Operations-Current Force
OIF – Operation Iraqi Freedom
TCM – TRADOC Capabilities Manager
TTSB – Theater Tactical Signal Brigade
WAN – wide area network
WIN-T – Warfighter Information Network-Tactical

TCM update TCM N&S

Defense Message System AN/TYC-24(V)3 Tactical Message System

By William Righter and Kris Nicholas

The Department of Defense has mandated the Defense Message System to replace AUTODIN and become DoD's organizational message system of record. The

Defense Information Systems Agency is the lead DoD agency for the managing the global DMS program. Each service has the responsibility to extend the DISA provided global DMS services to their strategic and tactical organizations. Defense Message System – Army is the Army's program for extending the sustaining base DMS services into tactical environments.

DMS provides functionality, security, survivability, and availability of organizational messaging services throughout DoD. Army Regulation 25-1 dated July 15, 2005, paragraph 6-5(f) defines organizational messaging as correspondence that is used to conduct the official business of the Army. Any message that commits resources, directs action, clarifies official positions, or issues official guidance is considered an organizational message. Department of the Army Pamphlet PAM 25-1, dated Oct. 25, 2006 paragraph 10-6 b. (1), states that DMS is the only authorized electronic medium for the exchange or organizational messaging within the DoD, other government agencies, and allied nations.

Characteristics of the DMS include:

Accountability - message delivery is traceable and auditable;

Authentication - guarantees the identity of senders and recipients with the assigned organizational PKI certificates;

Confidentiality - messages are encrypted between the releasing organization and the receiving organization;

Interoperability - based on established international standards and protocols; Interoperable with combatant commands, services, agencies, joint staff, allies and coalition members that conform to the same standards.

Non-repudiation - protects against users denying that they participated in a message exchange when, in fact, they did; digital signature and a traceable audit trail provide non-repudiation of the originator, i.e. only the originating organization could have sent the message.

The tactical message system is the Army's solution for extending DMS services into the tactical environment. TMS provides users access to the DMS global address directory and the capability to exchange signed and encrypted messages using a class four public key infrastructure hardware token.

The TMS acts as a messaging gateway to the joint task force, joint staff, other services, federal agencies, and sustaining base organizations. The TMS uses the existing tactical network transport infrastructure for intra-theater tactical connectivity and the Defense Information Systems Network for reach connectivity to the sustaining base.

The TMS uses DISA developed software that is loaded on approved operating systems platforms. Each TMS is comprised of two transit cases containing laptop computers, routers, cables and ancillary devices, two cargo high-mobility multipurpose-wheeled vehicles, one shelter (modular command post system) or deployable rapid assembly shelter, and one 2KW generator.

The Product Manager Defense Message System – Army, Fort Monmouth, N.J., has completed fielding the TMS to the U.S. Army Signal Center School of Information Technology, all corps, divisions, and select signal battalions.

PM DMS-A is currently working to upgrade the fielded TMS suites to provide deployed users the ability to conduct organizational messaging using the same web browser interfaces and technologies as in the sustaining base. The intention is to simplify the DMS user interface and eliminate the administrative overhead of maintaining class four tokens (e.g. FORTEZZA) on messaging client platforms. The heart the modernized TMS is the automated message handling system. The AMHS provides the capability to:

- Correctly route or profile military messages for delivery to the right desktop based on message content
- Provide discretionary access controls for added security
- Provide straightforward tools for searching and retrieving archived messages while protecting against unauthorized access
- Provide an easy way for staff members to draft, staff, and release outgoing messages
- Provide a built in United States message text format editor to facilitate proper formatting of military message traffic

For further information on DMS-A, contact William Righter or Kris Nicholas, Training and Doctrine Command Capabilities Manager Networks and Services, (706) 791-2721/,7939 respectively. DSN prefix is 780. Email addresses are

Acronym QuickScan

AMHS – Automated Message Handling System
AR – Army Regulation
DA – Department of the Army
DAC – Discretionary Access Controls
DISA – Defense Information Systems Agency
DISN – Defense Information Systems Network
DMS – Defense Message System
DMS-A – Defense Message System – Army
DoD – Department of Defense
DRASH – Deployable Rapid Assembly Shelter
HMMWV – high mobility multipurpose wheeled vehicles
JTF – Joint Task Force
MCPS – Modular Command Post System
OS – Operating Systems
PAM – Pamphlet
PKI – Public Key Infrastructure
PM – Product Manager
TMS – Tactical Message System
TRADOC – Training and Doctrine Command
USMTF – United States message text format

william.righter@us.army.mil or
kris.nicholas@us.army.mil

Mr. Nicholas is a Senior Systems Analyst with Janus Research Group Inc. and has been providing contractor support services to the Signal Center Directorate of Combat Developments, the TCM N& S and the DMS – Army program since his retirement from the Army Signal Corps in 2000.

Mr. Righter is a Department of the Army Telecommunications Specialist with the TCM N&S directorate.

TCM-TR

Power, grounding, and power distribution

By COL John K. Dewey and John M. Tobias, PhD, PE

Tactical power generation allows us to go anywhere, anytime, and provide world class communications in very austere conditions. Communications outages are simply not acceptable at any time. Power outages are often the reason for outage provided for down time. The fact is that the power source is not normally the problem. Our Signal force is world class, disciplined, and diligent with a real strength in maintenance at all levels. When power is associated with a communications outage it is more likely because of grounding and/or power distribution.

The best reference for power, grounding, and power distribution is FM 5-424, *Theater of Operations Electrical Systems*, 25 June 1997.

Power, grounding, and power distribution are extremely important to signal planning. Key components to power planning are the selection of a power source, set-up of power generators (use of phases, wiring, loading, physical location, sun shade, etc.), grounding of power sources and electrical components, and the distribution of power. Reliable commercial power is a good choice when the force is at the long halt. Using commercial power allows the force to prepare tactical power for the next mission.

Chapter 10 of FM 5-424 addresses setup, installation and operation of generators. Power generators must be in good working order, serviced on time, placed on level ground, and grounded properly. Services are determined by hours of operation. Signaleers track the hours of operation of each generator, and perform preventative maintenance checks and services before during and after operations. Air and oil filters are replaced based on hours of operation and the physical environment. Generator services must be accomplished routinely. One generator is never enough. Most must be off line to change filters.

Generators must be kept as cool as possible. Sun loading (sun shining directly on a generator) can cause overheating. Shading a generator with sun shades or camouflage can keep its operating temperature within the normal operating range even if the ambient temperature is high.

Chapter 8 of *FM 5-424* addresses power load calculations and generator selection. The first step in a power plan is calculating the electrical load requirements. Power (symbol P) is defined by units called Watts (W). Current (symbol I) is defined by units called Amperes (amps or A). Voltage or the potential difference (symbol V or E) is defined by units called volts (v).

Power = (Current) x (voltage) or P = IE or P = IV.

Electronic components have data plates. The data plates provide the power requirements in voltage and current. Determine the power requirements from voltage and current. Soldiers can also refer to system training manuals for power load requirements. Engineers rate each component separately with added power margin. When components are aggregated the margin above the minimum essential power load requirement adds up and may cause your electrical load requirement calculations to exceed good generator loading practice. Conversely, equipment demand factors, power factors, and capacity for growth may have to be accounted for as discussed in the FM. The best way to determine the full requirement for combined electrical components is to use the data plate information as your guide and then measure the load on the power source.

The next step is to separate signal equipment from air conditioners, refrigerators, microwaves, heaters, coffee pots, etc. These electronic components create power fluctuations. For example: air conditioners have compressors and for most models the compressor only engages periodically, each time the compressor engages the power draw increases, creating fluctuation in the current available. Current fluctuations cause electronic devices to react abnormally, and failure is more likely to occur.

To select the right power source you must understand how generators work and set the phases up properly. The generator power is divided by the number of phases. For example a single phase 10kW generator provides

P=IV

P = power in Watts; I = current in Amps; V = voltage in volts

10kW = (120v)(I)

I = 10kW/120v ~ 83amps.

A three phase 15kW generator provides 5kW on each phase or 5kW/120v ~ 41amps. Therefore, if a 50 amp circuit is required a single phase 10kW generator is better than a 15kW generator operating three phases. Bigger is not always better.

Generators must be set up properly and matched to the task. Generators normally operate with single or three phases, and should be loaded to 80 percent of capacity when possible; an under-loaded generator can be as problematic as

one that is overloaded. Loads should be distributed evenly to all phases of the generator. Wiring data plates are provided on tactical generators, and in the technical manuals. To better understand single phase, two and three-wire configurations, and three phase, three and four wire configurations, reference FM 5-424, *Theater of Operations Electrical Systems*, June 25, 1997. This FM is a must have in power planning. Know what is plugged in to your generator. User creep can cause generator loads to become unbalanced.

Grounding:

Grounding is a force protection and leadership issue. *PS Magazine*, May 2007 has a great article on grounding. Another good document is Communications Electronics Command TR 98-6 *Earth Grounding and Bonding Pamphlet*, available at http://www.monmouth.army.mil/cecom/safety/system/spublication.htm. Power generators require proper grounding to attain the potential difference needed to provide power. Power sources are especially susceptible to faults when electrical grounds are not up to standards. Generators typically have nine foot copper ground rods with copper grounding cables. Use them, and check them (less than 25 ohms of resistance) after installation. Less resistance is better. Use ground resistance meters every time to ensure a proper ground before operation. A ground that looks good is not always good enough. Pour rock salt and water on, and around ground rods. Add ground rods that are spaced apart and link them together with copper cable until you meet the resistance requirement.

Generators that are on a trailer or vehicle must be grounded to the platform. Dual mounted generators must be equally grounded to the platform creating a common ground, and the platform must be grounded to the earth. If the generator set has a switch box, the box must also be grounded to the common platform ground.

Dismounted equipment also requires grounding. Most transient cases have ground terminals and must be grounded. Fixed station racks also require grounding; typically the rack is the ground point and must be connected with continuity to the ground.

Always make sure that equipment grounding conductors are properly connected. This is a critical part of grounding which helps prevent hazardous voltages from developing on equipment enclosures and helps to trip circuit breakers quickly in the event of a fault. Never use equipment that has a ground pin missing or the equipment grounding conductor (green colored or bare) disconnected. Make sure equipment grounding conductors are properly connected at the generator.

Power distribution:

Paralleling generators and using switch boxes is science not art. Generators must be cabled properly and the switch box must be rated to perform the job. Even in the best situation a power spike or failure may occur. Do not enable power failure; get the set up right.

Circuit breakers need to be rated for the circuit requirements. For example a 20 amp circuit breaker on a 120 volt circuit provides P = (120)(20) Watts = 2400 W or 2.4kW. If the load exceeds the rating of the circuit then the circuit breaker will trip and disconnect the power source creating a communications outage.

Communications shelters normally have gauges at the terminal. Adjust power at the source while monitoring the gauge at the terminal to provide the right power. Commercial equipment or dismounted equipment does not come with this capability. Know what power is available at plug-in points, under load. Most equipment comes with a power cord, and the cord is rated to provide the needed electricity to the electronic components from the origination source.

If you are extending the length of the provided power cable using extension cords or other cable, you must measure power available at the source of the last plug, or calculate the power loss for the cable, and ensure the original source can provide what is needed over the distance of the extension. For this you need to know the voltage drop or line loss. To calculate the voltage drop you need to know the gauge of the cable or the loss rating normally provided in percentage of input voltage.

Multi-meters are essential for communicators. Clamp around resistance meters are great for testing grounds, and clamp on ammeters are very useful for testing power under load. A non-contact voltage detector allows quick and easy determinations if circuits, terminals, etc., are live. Know how to use test equipment, and ensure you have spare batteries to power them. Another useful tool is a plug-in polarity checker. You can find these at most electrical shops, and they are inexpensive. Most polarity checkers have LED readouts that provide you with information about the source of power, phase, and ground.

Uninterruptible Power Supplies at the end of an extension cord cannot recharge if you don't provide enough power. If the UPS is getting just enough power to provide power to the components it services then when back-up power is needed the UPS will fail. You must measure the power into the UPS, under load, and ensure it has the capacity to provide failsafe power to the components it is in line to protect. In the wrong configuration the UPS may inhibit the components from working properly by taking needed power from the source. Even a fully charged UPS may steal power from a circuit over time.

Not only do generators and power distribution systems have to be reliable, but they must also be installed, operated and maintained IAW all safety requirements. This is critical not only for the safety of the maintainer, but the user as well. Just because the equipment "works" isn't proof that the system is safe or that it will shut down safely in the event of a fault.

Extreme caution must be taken

when working around live power circuits. Maintainers must be qualified, which means they need to know how to identify hazards.

COL Dewey is the Training and Doctrine Command Capability Manager for Tactical Radios at Fort Gordon, Ga. He can be reached by email at john.dewey@us.army.mil or phone at 706-791-7982 DSN 780-7982.

Editor's Note: Contributing to this article is Mr. Tobias, PhD, PE with U.S. Army CELCMC Directorate for Safety, Fort Monmouth, N.J.

Acronym QuickScan

A – amps or amperes
CECOM – Communications Electronics Command
CELMC – Communications Electronic Lifecycle Management Command
E or V – voltage
I – current
IAW – in accordance with
LED – light emitting diode
P – power
PMCS – preventative maintenance checks and services
RFO — reason for outage
TM – training manual
UPS – Uninterruptible Power Supplies
V or E – voltage
V – volts
W – watts

SIT update

Updates from School of Information Technology

School of Information Technology recognized by CISCO Systems

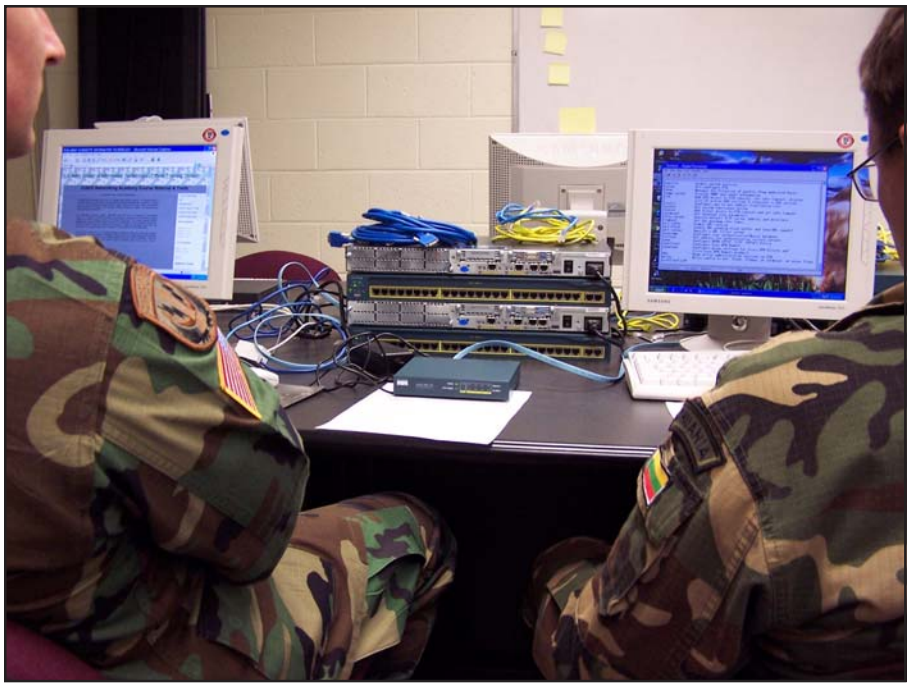
By MAJ Mark Thomson

The Cisco Learning Institute recognized the United States Army Signal Center's School of Information Technology as an award winner in Cisco's 2007 Rigor, Relevance, Relationships, and Results Recognition Award Program.

As part of its mission to train signal leaders in the latest hardware, software, and computer networking concepts, SIT runs an official Cisco Regional Academy, delivering Cisco curriculum in router and switch networks to most signal leaders attending professional military educational training at Fort Gordon.

The SIT was recognized in the category of relevance by providing highly technical and relevant training to Signal Corps leaders to install, operate, maintain, engineer, and manage the Army's networks in support of real world missions in Iraq and Afghanistan and other locations throughout the world.

The SIT's Cisco Academy is one of the largest Cisco Regional Academies, a higher level Academy to other, Local Cisco Academies. The SIT is responsible for the administration and training of instructors from various local Academies, including sites at the National Guard/Reserve Training Center in Little Rock, Ark.; Yongsan, Korea; Fort Meade, Md.; Fort Bragg, N.C.; and, the 2nd Marine Expedition Force at Camp Lejeune, N.C. Instructors from each of these unit's Cisco Academies must be trained by the staff at the SIT.



Cisco Academy students perform a hands-on lab exercise.

They must not only demonstrate a thorough understanding of the underlying theory of router and switched networks, but also demonstrate proficiency through hands on testing on actual equipment.

SFC Kelvin Mahan, an instructor in the Cisco Academy, attended the annual Cisco Networkers Conference July 22-26 in Anaheim, Calif., and represented the Signal Center in receiving recognition for the Cisco Academy. The Cisco Academy at the Signal Center is truly providing relevant training that assists signal leaders in accomplishing their wartime mission.

MAJ Thomson is the Chief, Network Management Division of the School of Information Technology. MAJ Thomson is a Functional Area 24 (Telecommunications Systems Engineering) Officer. He holds a Master of Science in Telecommunications from the University of Colorado-Boulder and a Bachelor of Science in Business (Management Information Systems) from Oregon State University.

Acronym QuickScan

4R – Rigor, Relevance, Relationships, and Results
SIT – School of Information Technology
U.S. – United States

Circuit check

News and trends of interest to the Signal Regiment

Leader Transitions

BG Jeffrey W. Foley is 32nd Chief of Signal

Larry Edmond

BG Jeffrey W. Foley assumed command of the U.S. Signal Center and Fort Gordon in a change of command ceremony on Barton Field early Tuesday morning.

He becomes the 32nd Chief of Signal, replacing BG Randolph P. Strong.

There is no military ceremony filled with more pomp and tradition than the change of command.

With a mix of multi-service commands spread out across Barton Field this ceremony provided high order drama in which even nature seemed to partner.

On the morning of July 17 hundreds stood in formation on the parade field as the unforgiving July sun broke above the tree line. Fifteen minutes into the event, just as most spectators in the stands began using the ceremony's program to fan the rapidly heating air, a refreshing breeze flushed across the field. Cue the band. Cue the wind. The 50 states flags, regimental, battalion, and company guidon and banner flapped noiselessly in the gentle breeze—a perfect picture. Cannons fired, the band played and service members paraded proudly. It was a picturesque scene.

"Man, there is no way you can look at this and not be proud of our military," said Command SGM David Bruner, U.S. Army Combined Arms Center command sergeant major, who traveled to the event with LTG William Caldwell, U.S. Army Combined Arms Center commanding general.

Caldwell presided as the ranking officer at the ceremony.

31st Chief of Signal, BG Randolph P. Strong relinquishes command of U.S. Army Signal Center and Fort Gordon to BG Jeffrey W. Foley, the 32nd Chief of Signal. LTG William Caldwell, U.S. Combined Arms Center commanding general presided as ranking officer at the ceremony.

32nd Chief of Signal
BG Jeffrey W. Foley

Units participating in the change of command ceremony included, Army Signal, Intelligence, Medical, Dental, National Security Agency, Marine Corps, Navy and Air Force. The inter-service status of command at Fort Gordon makes it unique and challenging Caldwell said in his remarks.

Caldwell offered advice for the new commanding general. "The biggest thing I will tell the new commander that I want to see taken on in the schools and centers is to work the interagency piece more diligently than we even have in the past. We did great years ago with bringing the services closer together with Goldwater-Nichols, and we are a lot more joined than we ever have been. We now need to make that next step to be a better interagency element than we have ever been. My experience this last 13 months in Iraq, to back in Haiti in 94 and back in Panama in 88, we need a closer interagency coordination and training together before we get into some sort of conflict."

Foley, a native of Cincinnati, Ohio, comes to the Signal Center from the Department of the Army's

Office of the Chief Information Officer and G6 where he served as the director of Architecture, Operations, Networks and Space since June 1, 2005.

Foley said command of the Signal Center and Fort Gordon is a special honor for him because he is coming to the home of the Signal Regiment. He thanked the Augusta community for its support of the military. He also offered thanks to Strong for his turning over a post in excellent shape. Foley had special praise for "those warriors who are deployed. I want to provide the leadership they deserve."

In the future, Foley said "We have two challenges: one we must continue to support everything in every way that we can in the fight that is ongoing in Iraq and Afghanistan—this war on terror; and two, we at this installation play a major role in setting the conditions for the future of the Army and the Signal Regiment. I just want to continue the great work Randy Strong has been setting for the past few years."

Mr. Edmond is editor-in-chief of The Signal *newspaper, at the Signal Center, Fort Gordon, Ga.*

Capps assumes deputy commander position at Signal Center

By COL Jack Bryant

The Signal Center and Fort Gordon welcomed Joe Capps and his family in ceremony followed by a reception Sept. 6.

Capps is a Senior Executive Service who assumed the duties of the U.S. Army Signal Center deputy commander. Chief of Signal BG Jeffery Foley is pleased with the choice of Joe Capps.

"Joe brings a wealth of experience and skills to the job of deputy commander. He is a great leader, knows how the Army works, and is well-known throughout the Signal community. We are absolutely delighted to have Joe and his family as members of our Fort Gordon and Augusta community."

Joe Capps, a qualified SES, brings dynamic experience as a self-starter with a myriad of skills and as an SES he offers a stability to the position of U.S. Signal Center and Fort Gordon deputy commander.

The change to a civilian reflects a move by the U.S. Army Training and Doctrine Command to convert their training centers, such as the Signal Center, to Centers of Excellence. The U.S. Army Signal Center is the Army's Signal Center of Excellence. Other Centers of Excellence have already changed their deputy positions to an SES.

Placing a qualified SES into the position provides stability and allows other brigadier generals to fill assignments in other locations.

Capps comes to Fort Gordon from Fort Huachuca, Ariz., where he was director, Enterprise System Technology Activity for the U.S. Army Network Enterprise Technology Command/9th Army Signal Command.

He graduated from Texas A&M University in 1991 with a degree in electrical engineering. Capps served in the U.S. Army from 1984 to 1988 with the 82nd Airborne Division and the V Corps Long Range Surveillance Unit.

Capps entered government civilian service in 1992, working as an electronics engineer with the U.S. Army Research Laboratory, where he designed integrated components for remote tracking devices. From there he transferred to the U.S. Army Missile Command, where he developed digital guidance and control systems for remotely guided decelerators.

In January 1988 he joined the Army Spectrum Manager's staff with the responsibility of interpreting national and international spectrum management rules, laws, and radio regulations.

Before moving to Fort Huachuca, Capps worked as the deputy director of Information Operations, Networks and Space for the Office of the Army Chief Information Officer in the Pentagon.

COL Jack Bryant is Chief of Staff for the U.S. Army Signal Center and Fort Gordon.

Technology leader leaves NETCOM

By Gordon Van Vleet

After four years at the helm of one of the newest and busiest technology organizations within the Army, the Army's Enterprise Systems Technology Activity Director, Joe Capps, leaves his post to assume the position of Deputy Commander, U.S. Army Signal Center at Fort Gordon, Ga. Capps takes with him a wealth of knowledge and experience he attributes to the position he is leaving.

The U.S. Army Network Enterprise Technology Command/9th Signal Command (Army) was established in 2002 and with its creation ESTA was formed. The director position was created to be filled by a Senior Executive Service position and Joe Capps was selected for promotion to the SES ranks and became the first director of ESTA.

"I was very fortunate to come to an organization that had a clean slate and I had a boss, MG James Hylton, who was willing to allow me to write and develop what ESTA was going to become and what ESTA was going to do," said Capps. "It was my green fields, and there was no better situation to start

with."

"ESTA has now solidified the mission and role it has within the confines of the Army," said Capps. "With the continued guidance received from BG [Carroll] Pollett, we now have a very well defined mission in ESTA."

"Because it was a new organization, a lot of its leaders, the GS (Government Service) 15's and colonels, came from different originations creating a very diverse work force," said Capps. "I got people who were willing to look at things from all angles, out of the cube thinkers. The combination of multiple personalities and different view points is about as good as it gets for a leader."

Capps said people don't make it to that level unless they are self starters, and that was what Capps got with the leaders he's worked with since he became director. "ESTA got to where it is now because of those people," said Capps. "It has been very easy for me because of that. I've had some real smart people, Bob Ringdahl, Roy Lundgren, Peggy Henderson, Mike Bomba, Jeannie Tanaka, COL Tim Fong, retired COL Mike Thompson, and more. Each brought a different perspective and made ESTA successful."

ESTA has three basic missions, said Capps. "The first is the service mission with responsibility for providing long-haul communications. Spectrum Management is involved in this, with part of its mission being very service oriented." The second mission is the policy/enforcement mission. The regional Chief Information Officers, Information Assurance, Spectrum Management, all of which are responsible for drafting policy and in some cases enforcing policy, said Capps.

The third mission is best described as developing and implementing architecture, the vision of the network, he said. "This mission's focus is on where Army C4 services are going in the future."

There is good and bad in these three missions. On the positive side, a wide span of missions allows

Joe Capps was selected for promotion to the SES ranks and became the first director of ESTA. Capps credits his boss MG James Hylton, for allowing him to write and develop what ESTA was going to become and do.

leaders to use each one of those pieces to directly influence the other, said Capps. "Since we are the concept developers, it is easy for us to go talk to the service delivery people and ask what kind of concept actually will work in the real world. And then we can talk to the policy enforcers and ask, 'can you really enforce this new policy?' So immediate feedback and close horizontal integration helps a lot."

The challenge is that the wide mission span tends to produce a large organization. "Sometimes when you have an organization that has such a huge scope it is hard to keep track of all the details," said Capps. "In that case, what you have to do is make a decision, does the good outweigh the bad, if it does you keep going and if it doesn't, then you need to change it."

The biggest accomplishment Capps talked about was ESTA's consolidation of IT services, through Area Processing Centers and other major projects that have made the enterprise solution the future for IT services. Consolidation of IT services involved not only building APCs, but also involves the moving of services from the installations to the APC. "It is not just building a data center, it is building a data center and moving services and service delivery from the installation level to the enterprise level," said Capps. "That is where the real meat of the mission is. All of that is consolidation of IT services."

Another part of consolidating IT services is changing the cultural aspect. It is changing the way people think about their IT services, not just moving the service, but changing the way they consider the service.

"Changing the culture was easier than I expected," said Capps. "I had thought culturally we would have had a long fight, but what happened, was people were ready for a change in service delivery." Capps felt that since most installations had cut **IT** budgets, they ended up not refreshing technology and or equipment. They did not have the level of service they needed. That created an environment where they were very ripe for acceptance to change. "When things are bad, change is easier to accept," said Capps. "You want people in the right mindset when introducing change and this was the case with consolidating IT services."

"Out of everything we are

doing, the overall objective is to ensure that the right piece of information or service gets to the right person at the right time, globally," said Capps. "It does not matter where you are at, you should have access to these services globally, and if we do this, then we met the objective."

The problem is measuring the outcome said Capps. "A lot more touchy feely goes into measuring services delivered or needed. It's not like building widgets. If you were building cars, you could stand at the end of the line and count the cars built or implement a quality assurance program. But it is not that clean here. For us to really know if we are succeeding, we have to be plugged into the customer as though standing right next to him or her. You have to be that close, close enough to know if what you are delivering is meeting their requirement. Do they actually use what you deliver, and is what you are delivering making their job easier or harder? And that is where NETCOM/9th Signal Command (Army) comes in.

"NETCOM is built to do this because if you look at every theater, you will find a NETCOM unit," said Capps. "We have NETCOM Soldiers literally standing beside the customer. ESTA can compile the information, but collecting and getting that information is a global NETCOM mission."

Although Capps has enjoyed his time at ESTA, he feels it is time to move along. Having served as director for more than four years, Capps feels it is time to move on before he starts to feel complacent. Capps did say he learned a lot as ESTA director. "My time here helped prepare me to think globally. When you become an SES, you are supposed to think outside your organization. Because of ESTA's broad mission, I've been given the opportunity to look beyond my organization and I've had to learn to think globally."

Even though he has accomplished much during his time as director of ESTA, Capps said he owes all the successes to the Soldiers and civilians in ESTA.

"If you want to make something happen in an organization then you have to have the active engagement of the people in the organization. If the people in the organization don't want something to happen, then no matter how hard you try, it will not happen," said Capps. "I quit worrying about the things I wanted to get done and just focused on the people, and the things got done. The rewards of watching someone get satisfaction out of their job is worth it."

In the end, there was only one thing that mattered. "If the people in ESTA thought that I took care of them then I am happy," said Capps.

Mr. Van Vleet is with the Public Affairs Office, Network Enterprise Technology Command /9th Signal Command (Army), Fort Huachuca, Ariz.

Signal Center Command Sergeant Major Change of Responsibility Celebrated

By Siobhan Carlile

Responsibility for the U.S. Army Signal Center and Fort Gordon command sergeant major passed smoothly Oct. 26 at a Change of Responsibility Ceremony.

With a group of dignitaries, family, and friends assembled at the Signal Towers flagpole, CSM Thomas Clark, U.S. Army Signal Center and Fort Gordon command sergeant major, accepted the Signal Center colors from CSM Michael Terry, former U.S. Army Signal Center and Fort Gordon command sergeant major, who retires after 34 years of distinguished military service.

BG Jeffrey W. Foley, U.S. Army Signal Center and Fort Gordon commanding general, welcomed special guests, friends, and families as they joined to celebrate both of the sergeants major careers as they transition into their new roles.

"Today is about honor...the honor of transferring the responsibilities of our senior noncommissioned officer, of our Signal Center School and Regiment. It is about the honor of being a noncommissioned officer – the backbone of our Army. [It is about being] leaders relentless in accomplishing the mission...in taking care of Soldiers and Families. It is about honoring the tradition of retirement from active duty.

CSMs Thomas Clark *(left)* and Michael Terry march to the front of the formation assembled for the Change of Responsibility Ceremony Oct. 26, 2007 at Fort Gordon.

"Today we honor and bid farewell to the Terry team – Mike and Ginny, and welcome the new team of Tom and Janice Clark," Foley said.

Terry summed up his years of service with his quick wit and sage advice. "When you are doing something you love, cherish the time you do it because it will go so quickly," he said. Terry and his wife Ginny served together his entire career as they married soon after Terry completed basic training. Ginny Terry received numerous awards in appreciation of her dedicated and selfless service during her husband's 34 year career.

To honor the Terrys the Signal Band played the *Nebraska Fight Song* and *Old Soldiers Never Die, They Just Fade Away*.

Clark was also to the point when he introduced himself, "My name is Clark, and I am a Soldier," which was met with great enthusiasm from the crowd.

A clearly bittersweet event, all three Soldier-speakers joked about the mold in the air bothering their eyes. Throughout the crowd handkerchiefs and tissues were modestly dabbing noses and eyes. There was no doubt that the Terrys made deep personal impacts.

Mr. Carlile is a staff writer for The Signal newspaper, Fort Gordon, Ga.

COL Bruce T. Crawford (left) accepts the 516th Signal Brigade colors from MG Donna L. Dacier, marking his assumption of command of the brigade July 6.

COL Bruce T. Crawford gives remarks at the 516th Signal Brigade change of command ceremony.

Crawford assumes command of 516th Signal Brigade

By Bill McPherson

FORT SHAFTER, Hawaii — "Your tremendous reputation for excellence precedes you, and I'm humbled by your presence," COL Bruce T. Crawford told the Soldiers, civilians and guests of the 516th Signal Brigade shortly after assuming command of the brigade July 6 at a Palm Circle ceremony.

"I look forward to the challenges that we as a team will overcome, but more importantly to the climate that we'll set and the relationships that we'll establish over the next 24 months," Crawford said in his speech to the crowd of more than 400 personnel on the field or in the audience.

Crawford assumed command of the 516th from COL Edric A. Kirkman, who had led the brigade since June 28, 2005.

MG Donna L. Dacier, commander, 311th Signal Command (Theater), officiated. Kirkman moves to Dacier's Fort Shafter headquarters month to become the 311th's next chief of staff.

Dacier thanked Kirkman, his wife, and their sons for their contributions to the U.S. Army Pacific the past two years, and welcomed Crawford and his family to the theater.

"COL Kirkman provided the brigade with a variety of command and control and information technology initiatives, deployment readiness and Soldier development programs, ensuring the training and readiness of each Soldier and unit," Dacier said in her remarks.

"Throughout his command time, he was an integral part of transformation — from extending the Pacific LandWarNet, to relocating the 307th Integrated Theater Signal Battalion from Korea to Hawaii and Alaska," Dacier added. "Under Edric Kirkman's leadership, the 516th Signal Brigade has consistently set high standards and remained committed to readiness and teamwork at all times."

Dacier pointed out to the audience that Crawford is a Ranger, a master parachutist, and while a battalion commander, he deployed to support both Operations Iraqi Freedom and Enduring Freedom.

"I can guarantee that a tremendous warfighter has joined our ranks today," Dacier said. "Bruce, we are thrilled to have you join this great team."

Kirkman thanked the command teams of the 516th's five battalions and its Headquarters and Headquarters Company, who were in formation on the field, as well as the brigade headquarters' senior staff for their loyalty, talent and drive in accomplishing the command's theater-wide signal missions in Alaska, Hawaii, Okinawa, and Japan.

"One of our most important transformation initiatives this past year was the transfer of the 307th ITSB to the 516th Signal Brigade last fall, and the 307th's successful achievement of initial operating capability last month," Kirkman said. "When the 307th reaches full operating capability, it will give USARPAC expeditionary signal forces in the near future."

Among the special guests attending the ceremony were two alumni of the 516th — LTG (Ret.) Thomas M. Rienzi, who commanded the 516th's predecessor command, U.S. Army Strategic Communications Command-Pacific from 1972 to 1974, and BG Ronald M. Bouchard, a former 516th deputy commander from 1997-98, who is now serving as the J-6 director, U.S. Pacific Command.

Crawford comes to Hawaii from the Industrial College of the Armed Forces, Fort McNair, Va., where he earned a Master of Science degree in national resource strategy last month.

He has also earned a Bachelor of Science degree in electrical engineering technology from South Carolina State University, and a Master of Arts degree in administration from Central Michigan University.

Crawford's 21-year career has taken him to Germany; Fort Gordon, Ga.; MacDill Air Force Base, Fla.; Alexandria, Va.; the Pentagon; and several tours at Fort Bragg, N.C.

In June 2002, he assumed command of the 82nd Signal Battalion, 82nd Airborne Division, Fort Bragg (he had earlier served as executive officer for the same battalion), where he and his battalion deployed in support of Operations Iraqi and Enduring Freedom until June 2004.

He was then assigned to the Joint Staff, Washington, D.C., where he served as executive assistant to the J-6.

Crawford's awards and decorations include the Bronze Star Medal, Defense Meritorious Service Medal with oak leaf cluster, Meritorious Service Medal with three oak leaf clusters, Iraqi Campaign Medal, Global War on Terrorism Expeditionary Medal, Joint Service Unit Award, Combat Action Badge, Master Parachutist Badge, and the Ranger Tab, among others.

Mr. McPherson is with the 516th Signal Brigade, Public Affairs Office, Fort Shafter, Hawaii.

392ND B COMPANY HAS NEW COMMANDER

TOBYHANNA ARMY DEPOT, Pa. — LTC Timothy Cassibry (left), commander of the 392nd Signal Battalion, hands the flag, and command, of B Company to CPT Chris Ackerman on Sept. 9. MAJ Shane Abell, who was promoted that day, was commanding officer of B Company since August 2006. Prior to assuming command, Ackerman was a member of the 392nd Expeditionary Signal Battalion. The mission of B Company is to install, operate and maintain communications systems in any designated theater area of operation using the Joint Network Node and Command Post Node. These systems provide the warfighter with voice, data, and video teleconference capabilities. The 392nd is an Army Reserve unit.

44TH EXPEDITIONARY SIG BN ASSUMES OFFICIAL DUTY IN IRAQ WITH TRANSFER OF AUTHORITY CEREMONY

By 2nd LT Kathryn Maier

BAGHDAD, Iraq — 5th Signal Command's 44th Expeditionary Signal Battalion based in Mannheim, Germany, unfurled their colors and assumed official duty in support of Operation Iraqi Freedom with a

LTC Kris Kramarich (left), 44th Expeditionary Signal Battalion commander unfurls the "Outstanding" battalion colors alongside 44th CSM Earl Allen during a transfer of authority ceremony Nov. 3 in Baghdad, Iraq that officially marked the battalion taking the helm from the 86th Signal Battalion.

transfer of authority ceremony Nov. 3 in Baghdad, Iraq.

The "Outstanding" battalion replaced the 86th Signal Battalion based out of Fort Huachuca, Ariz. During their 15-month deployment, the 44th will be under the operational control of the 11th Signal Brigade also based in Fort Huachuca.

After the ceremony, LTC Kris Kramarich, the commander of the 44th, wished the 86th a safe journey home after their 15 months downrange and asked her Soldiers to stay focused on the mission and maintain center of gravity. "I charge you to have faith in what you already know, apply what your experience has taught you, and take care of yourself and your fellow warriors,"she said.

44th's CSM Earl Allen added that the ceremony was an excellent event that fully confirmed the 44th ESB has taken the helm.

"The Soldiers are motivated and ready to execute the 44th ESB wartime mission. It is our responsibility to ensure the warfighters have the best communication links possible. We will not fail them. I truly thank the 86th for their professionalism leading up to the transfer of authority."

2LT Maier is the Public Affairs Officer for the 44th Expeditionary Signal Battalion in Iraq.

Task Force Triple Threat and Task Force Thunderbird Transfer of Authority

By SGT Lewis M. Hilburn

In an early morning ceremony, the 3rd Signal Brigade, Task Force Triple Threat, transferred authority of signal operations in Iraq in support of Operation Iraqi Freedom to the 11th Signal Brigade, Task Force Thunderbird. Guests in attendance witnessed the last combat operation 3rd Signal Brigade would ever do. COL Anthony Bethea and CSM Dorsey, commander and command sergeant major for the 3rd Signal cased the guidon ending their tour in Iraq. Shortly after COL John Hildebrand and CSM Paul Grigsby commander and command sergeant major for 11th Signal Brigade, uncased the 11th Signal Brigade guidon marking their assumption of command for all signal operations throughout Multi-National Corps - Iraq.

The guest speaker for the event was MG James Simmons. He had some heart-felt things to say about the departing signal brigade. "I have been involved in casing and uncasing the colors of this brigade four times now. 3rd Signal Brigade has done a magnificent job during the deployment. The troopers of the 3rd Signal Brigade executed this mission in harm's way everyday with out fail," he said.

Simmons went on to list some of the brigade's accomplishments. A few listed included: they embarked on a 60 million dollar commercialization plan that resulted in the kinds of signal and internet that is here in Iraq, according to him. At the Joint Network Control Center, they developed a theatre frequency

(Below) 3rd Signal Brigade, Task Force Triple Threat, transferred authority of signal operations in Iraq in support of Operation Iraqi Freedom to the 11th Signal Brigade, Task Force Thunderbird.

management plan that decreased frequency request processing time by nearly 40 percent and they returned over 500 frequencies to the government of Iraq that the Iraqi Security Forces use. They also processed over 500 million telephone calls and emails throughout all of Iraq.

Simmons told those in attendance that the 11th Signal Brigade is trained and ready to assume the signal mission here in Iraq. "I am confident you will not only carry on the great tradition of the signal brigades that have preceeded you here but you will also add to that tradition with your own accomplishments during this critical period here in Iraq," he said.

Simmons closed his speech with these words, "I am happy to report to you that the 3rd Signal Brigade has completed its mission and is relieved of its duties here in Iraq. The 11th Signal Brigade is trained and ready and assumes that mission today."

Following Simmons, Bethea spoke with great conviction about the task force he so proudly commanded. "I truly feel blessed to have had the honor and privilege to command Task Force Triple Threat for the past 15 months and though it was challenging, at times, it was never boring; it was always rewarding and even inspirational. He then spoke of the brigade's last mission. "This ceremony is bittersweet to me as this is the last mission of the last corps signal brigade in the Army," he said.

Hildebrand, with a shorter speech but with just as much impact, spoke proudly about accepting the mission and of his role as commander of Task Force Thunderbird. "This ceremony marks the formal passing of the responsibility from a truly remarkable collection of men and a woman, Task Force Triple Threat, to another extremely talented task force, Task Force Thunderbird, and it exemplifies our continued commitment to our mission here in Iraq. It is also a tribute to the service, sacrifice and commitment of our family members of both task forces," he said.

Hildebrand went on to praise Task Force Triple Threat on their successful mission. "COL Bethea and CSM Dorsey, you have forged an amazing team that has an unparallel understanding of this complex C4 (command, control, communications, and computers) environment. Our country and our Army owe you and your team a great deal of gratitude for your Herculean efforts over the past 15 months," he stated. Hildebrand said that even though 3rd Signal Brigade has accomplished a lot over the past 15 months Task Force Thunderbird is ready to meet new challenges ahead.

After the ceremony guest were invited to the inside foyer for food and refreshments.

SGT Hilburn is a public affairs writer with the 11th Signal Bde. at Camp Victory, Iraq.

NEWS

44th Signal Battalion's Road to War

By SPC Evan D. Marcy

WIESBADEN, Germany – The road to war has become more and more traveled. With the seven year mark since 9/11, news of another unit deploying to Southwest Asia in support of the Global War on Terrorism becomes a familiar announcement to military families and communities. 5th Signal Command's 44th Signal Battalion continues the fight and mobilizes for the third time in six years, this time in support of Operation Iraqi Freedom 2007-09.

In preparation, the 44th, which falls under 5th Signal Command's 7th Signal Brigade, completed a three-week mission rehearsal exercise at multiple locations around Mannheim, Darmstadt, and Wiesbaden.

The MRX included the battalion's four companies that set up communication systems to practice transmitting data to each other and the11th Signal Brigade, located at Fort Huachuca, Ariz., has operational control over the 44th downrange. Some of 44th's downrange missions include: providing secure and non-secure internet, secure and non-secure phone lines, secure and non-secure Voice over Internet Protocol phones, video conferencing and other specialty data-oriented communications.

"The motivation and workload of Soldiers in the outstanding 44th Signal Battalion is in fifth gear," said SPC Archie Meadors, B Co., 44th, who prepares for his first deployment.

As the battlefield continues to change, 5th Signal units transform in accordance with Army doctrine by fielding the latest technologies to best support joint, coalition and local-national forces. The 44th, along with its sister battalion, the 72nd, converted into "Expeditionary Signal Battalions" using modular communications equipment. This

(Left to right) SPC Yuri Cardoza, SPS Richard Winn and SGT Chad Stremovihtg, B Company, 44th Signal Battalion, bring down a line-of-site antenna at the Wiesbaden Army Airfield during the 44th's mission rehearsal exercise for their upcoming deployment in support of Operation Iraqi Freedom.

5th Signal's CSM Roderick D. Johnson inspects the equipment setup of the 44th Signal Battalion at the Wiesbaden Army Airfield. The 44th completed a mission rehearsal exercise at the airfield in preparation for their upcoming deployment in support of Operation Iraqi Freedom.

SPC Richard Winn, B Company, 44th Signal Battalion, rolls up a cable which was attached to a line-of-site antenna at the Wiesbaden Army Airfield. The 44th used the airfield as part of their mission rehearsal exercise for their deployment in support of OIF.

equipment, headed by Joint Network Nodes, allows the 44th to support and sustain a broader spectrum of units, even those without any organic signal assets.

Going modular, the ESB now provides smaller platoon-size elements to support a signal mission that normally required sending 50 percent or more of a battalion. This allows the extra benefit of freeing up more equipment and Soldiers to support follow-on missions. SPC Richard Winn, B Co., a shift worker on a command post node said, "I enjoyed the firsthand technical integration with the equipment, since most of my experience was in a classroom environment."

PFC Jennifer Dimitroff, B Co., said the training reminds her of what a signal company's core purpose is – providing real communication in a practice environment.

"The MRX was a great way to work out the final bugs in the system allowing us to validate not only our equipment but also the Soldiers' skills," said CPT Louis Nagel, B Co. commander. B Co. 1SGT Demetrius Steel added, "After the Soldiers certified you could visually see the confidence that they received from qualifying their equipment. Confidence in themselves and their equipment is what makes a mission successful."

SPC Dwane Phillips, B Co., is deploying for his third time. As a cable systems installer or "cable dog," his mission is pulling copper wiring from manholes that go around the perimeter of a base and replacing them with fiber-optic wiring so that everyone has internet access throughout their facility. Philips said this duty is part of the effort to commercialize Iraq.

Commercialization transitions military-centric logistics to integrating off-the-shelf equipment throughout an area of operations. "In Balad, Iraq, it took us seven-and-a-half months to finish commercialization. With it, many people can use phones and internet at the same time. Before, you had to take your laptop to the company to get internet, but with commercialization the connection speed is faster and more available. It's a lot of hard labor, but it's crucial," explained Phillips.

44th's CSM Earl Allen said, "I know the Soldiers are confident after making it happen in this MRX. Confidence rolls downhill and I know we are going to be successful downrange. I personally wouldn't want any other team but this one."

SPC Marcy is a native and resident of Long Island, N.Y. He is a 25V - combat camera Soldier. In the beginning of 2007 SPC Marcy joined the active duty Army after spending a

few years in the Army Reserves. The 5th Signal Command Public Affairs Office, Mannheim, Germany, is his first Active duty assignment.

Signal Soldier from Ghana reenlists indefinitely

By SGT Michael J. Taylor

MANNHEIM, Germany – The road of life often leads us on many intricate paths, forcing us to make critical decisions that ultimately determine who we are and where we end up in this world.

Making the decision to reenlist indefinitely to serve a country that wasn't his, and journey down a new path, was not hard to make for one Soldier from Ghana, Africa.

On Aug. 3, SSG Ulysses Acheampong, a member of the Ashanti tribe and 5th Signal Command's 7th Signal Brigade, decided to reenlist for his third and final time during a ceremony.

"I remember the road that led me to this point in my life," said Acheampong. "It was long and often challenging but very fulfilling."

Ten years ago, things were a lot different for Acheampong. He was a chef and the owner of a restaurant called Leena's Pot in Accra, the capital of Ghana. He had ten employees and the business that took him and his cousin seven years to build was finally booming.

"I had everything I needed, but there was still something missing," said Acheampong. "And that's when I decided to join my father in the United States."

His father had retired from the Ghanaian Army and decided to settle down in the U.S. several years prior.

Thus, in 1997, the then 29-year-old chef said his goodbyes and left Ghana with his two brothers.

"After arriving in America, my father laid it to my brothers and me straight," Acheampong said, with a serious face. "He told us that our options were wide open and we had to figure out what we wanted to do in order to make a good life for ourselves."

(Above) SSG Ulysses Acheampong, 44th Signal Battalion, is reenlisted by 7th Signal Brigade Commander COL Randall W. Bland on Benjamin Franklin Village in Mannheim, Germany Aug. 3. He is joined by his wife and children.

(Left) SSG Ulysses Acheampong, a member of the Ashanti tribe and 5th Signal Command's 7th Signal Brigade, reenlisted for his third time.

"Growing up in a military household, I knew exactly what I wanted to do," he said. "I wanted to join the Army."

The very next day Acheampong's father took him and his brothers to the Military Entrance Processing Station where they all made the decision to join the U.S. Army.

After entry into the Army, Acheampong and his brothers each went their separate ways. Acheampong, the oldest of the three, ironically became a cook. The middle brother joined as an infantryman and the youngest became a human resources specialist.

"The military has been very good for my family and I," he said. Through out his career Acheampong has served with the 21st Calvary Replacement Center in Fort Hood, Texas, the 3rd Squadron 4th Calvary in Hawaii, the 10th Transportation Battery in Fort Eustis, Va., and now with the 44th Signal Battalion here in Mannheim.

While serving with 10th Transportation, Acheampong got the opportunity to do something that not many of his peers can say they have done. He deployed to Kuwait and served as the Senior Food Operation Sergeant aboard the *TSV-1X*, *LSV-6* and *LSV-4* Army Vessels all based in Fort Eustis, Va.

"I will never forget that experience," said the cook. "Serving aboard a vessel was definitely one of the highlights of my career."

Some other highlights for Acheampong include, attending Culinary Arts School, Advanced Culinary Arts School and the Culinary Institute of America. While serving with the 44th, his team also

won the Philip A. Connelly Runner-up Department of the Army Level Small Category 2006 award for food service.

"Acheampong is dedicated to the dinning facility," said SSG Thomas I. Hulen, assistant dining facility manager for the 44th. "He knows his job and is very competent."

"When I first got here in March, Acheampong was the DFAC manager," said Hulen. "I was surprised at how well he filled that E-7 position and handled all those civilians and children that we serve day in and day out."

While serving as the DFAC manager for seven months, Acheampong and his crew successfully fed more than 70,000 hungry service members, family members and civilians.

"Acheampong and I often share our experiences of being deployed, we both have a lot in common with the way we think," said Hulen. "If I had a choice, let there be no doubt about it, I would definitely chose to deploy with him."

"I believe that anything worth having is worth working hard for, therefore I will continue to work hard so that my children can have all the things in their life I that never had," said Acheampong.

SGT Taylor is with** 5th Signal Command's 7th Signal Brigade, **Manheim, Germany.

Of Interest

5th Signal Soldiers contribute to Partnership for Peace International NCO leadership course

By Kristopher Joseph

SION, Switzerland — "Communication is the key" served as the main theme for the 2007 North Atlantic Treaty Organization / Partnership for Peace International Non-commissioned Officer leadership course at the Swiss Armed Forces junior training center in Sion, Switzerland. Two "communicators" from United States Army, Europe's 5th Signal Command were hand-picked as guest speakers to give their expertise to noncommissioned officers representing 19 different nations.

The 128th Signal Company command team of 1st SGT Samuel Taylor (left) and CPT Ken Donnolly (right) teach officer and NCO relations during the final day of the 2007 NATO/ Partnership For Peace International NCO leadership course at the Swiss Army junior training center in Sion, Switzerland, Oct. 19.

The 128th Signal Company command team of CPT Ken Donnolly and 1st SGT Samuel Taylor and from 5th's 2nd Signal Brigade, 39th Signal Battalion in Belgium where chosen by North Atlantic Treaty Organization's top enlisted Soldier, CSM Michael Bartelle, to teach "Officer and NCO relations at the company level" on the last day of the two-week course held in early October.

"It's a great honor that we were picked," said Taylor, who is no stranger to working with other militaries at Supreme Headquarters Allied Powers Europe.

The signal duo described the U.S. Army company-level officer/ NCO relationship as a quasi-marriage where the two often spend more time together than their actual spouses. The two drew rousing laughter from the class when they debated over who is the husband and wife in their "marriage."

The team received raised eyebrows when Taylor revealed that U.S. NCOs train not only the junior enlisted Soldiers but the officers as well in courses such as Airborne and Ranger schools.

"Young officers are bred, trained, and guided by senior NCOs at a company level, and the experience and knowledge they gain from those NCOs shape them into becoming good senior officers and commanders," said Taylor to the class.

Donnelly, who was also an NCO before becoming a commissioned officer, said that no commander can succeed without strong NCOs leading the way to accomplish the mission at hand.

"A key strength of any good officer is his or her ability to delegate responsibility to their NCOs," said Donnolly.

The two were followed by NCOs from Norway, Spain and Great Britain who shared their military's NCO structure and how they relate with officers. This time the eyebrows of Taylor and Donnolly were raised when the Norwegian NCO said he was on a first-name basis with every officer when he was assigned to an air base.

In stark contrast, the Spanish NCO said that their officers and NCOs work and live in strict, segregated worlds where most mission responsibility is given to officers. The British NCO said that their officers sometime speak a different language that the enlisted don't understand, but that NCOs are

ANA DISCUSSES COMMUNICATIONS ISSUES AT CONFERENCE

This is a news story about the Combined Security Transition Command-Afghanistan hosting a conference to discuss the communication needs of the Afghan National Army.

By Petty Officer First Class David M. Votroubek

KABUL, Afghanistan – The Ministry of Defense recently hosted more than 75 senior military communications professionals from across the Afghan National Army.

The conference was held to discuss strategic communications networks, tactical equipment fielding plans, signal policy issues and training requirements. Representatives from each of the six Regional Corps, Independent Commands, Ministry of Interior and coalition forces attended the conference. "Building a capable C4 (command, control, communications, and computers) force" was the conference's theme.

While only two days in length, "this conference is vitally important because it assists in the accelerated development and build up of national communications capabilities," said LTG Mohammad Ishaq Noori, ANA deputy chief of general staff. The general also said efforts achieved during the conference would help set the stage for integrating ANA communications systems with other national ministries, a move which further enables security and stability throughout the nation.

Air Force COL Christopher Cotts watches while two Afghan soldiers demonstrate field connectivity to the internet during the Afghan National Army's July 2007 communications conference.

CPT Enayatullah of the Afghan National Army demonstrates field communication capability to fellow members of the Communications Support Element, which is responsible for restoring communications for the ANA. The demonstration was part of the ANA's July 2007 communications conference, which is the first one planned and carried out primarily by the ANA. The purpose of the conference was to plan tactical communications and discuss common issues amongst the corps communications officers.

The first day of the conference was a day for critical assessment of current strategic and tactical communications plans.

"In December, I issued my ANA Strategic Road Map," said MG Mehrab Ali, communications director for the ANA. "The Strategic Road Map gave me, my staff and the regional commands much needed direction in the C4 arena. It outlined my priorities and established key milestones in six critical areas. This forum gives me an opportunity to measure success and determine where adjustments must be made."

The general stated the conference will help all MOD and corps communications personnel become more effective at coordinating and planning, ensuring no diminished capabilities during critical communications project fieldings.

Continuous progress and improvement were also the focus during the first day of the conference.

COL Christopher Cotts, director of communications for the Combined Security Transition Command-Afghanistan and one of the featured speakers at the conference, listed four challenges for the ANA: training, maintaining and sustaining equipment, developing doctrine and changing their perspective on communications.

Beyond the challenge of upgrading and deploying equipment, while training on it and using it to fight an insurgency, the ANA must also develop the means to maintain and sustain it, Cotts said.

Essential to carrying out the ANA's communications plan is the corps senior signal leaders. Many of these leaders spoke at the conference, talking passionately about the need for all conference participants to work together, ensuring superior communications at the tactical and up to the National Military Command level.

"We are ahead of the curve in

the issuing of equipment and systems, while simultaneously putting strategic communications into place that will affect command and control at the national level," said COL Sayed Aqa, 209th Corps communications officer.

The focus of day two during the conference was on sustainment functions. ANA communications officers provided updates of key sustainment programs, including strategies and developmental status on doctrine, budget, network operations, reporting, communications security and signal education.

A highlight for the event was the capability demonstration by the communications support element, a strategic asset with the mission to deploy, install, operate, and maintain long range, reach-back communications capabilities with national level headquarters.

"Our success will be measured by our ability to put into place and sustain those C4 systems that enable security and stability throughout the regions while extending the national government and its services to all provinces," Ali said.

Petty Officer Votroubek is currently assigned as a photojournalist to Combined Security Transition Command-Afghanistan in Kabul. He is a Navy Reservist who has served since 1984 as a helicopter mechanic and photojournalist. During a 23-year career he has served in a variety of assignments, including a repair ship, aircraft carriers, a helicopter company and fixed wing squadron, and a naval public affairs unit.

(Left) 228th Signal Brigade Soldiers secure their emergency communications equipment during Palmetto-CWID from Tropical Storm Barry's torrential rains.

A members of the Department of Defense Eagle Vision Team shows MG Spears, the Adjutant General of S.C. how they can provide real-time satellite surveillance of an event site following a disaster.

Palmetto-CWID
Transforming Guard's Emergency Communications Capability

By MAJ Scott Bell

For a third straight year at the beginning of hurricane season in June, the South Carolina Army National Guard sponsored an emergency communications exercise called the Palmetto Coalition Warrior Interoperability Demonstration or Palmetto-CWID. Involving nearly 40 different industry, local, state, federal, and military organizations from the June 2-16, the 2007 Palmetto-CWID exercise included earthquake, hurricane and terrorist disaster event scenarios. Synchronized with the South Carolina Emergency Response Plan, the Palmetto-CWID exercise has resulted in a transformation in the S.C. National Guard's emergency communications capability.

According to LTC Ronnie Finley, the administrative officer for the 228th Signal Brigade, Palmetto-CWID has resulted in expanded capabilities with military, federal, state and county level emergency operations centers; the identification of different communications challenges each type of disaster creates; the identification and integration of numerous intelligence, satellite and interagency assets which can be made available to future incident site commanders; and the further development of professional relationships within communication communities which are essential to

Soldiers from the 228th Signal Brigade JISCC Team demonstrate how they can provide emergency communications within a half hour after being inserted into an event area by 2nd of the 151st Aviation Battalion CH-47D Chinook helicopters.

Soldiers from the S.C. Joint Force Headquarters' Joint Incident Site Communications Capability or JISCC Team set up their equipment outside the North Charleston Emergency Operation Center, or EOC to demonstrate how the S.C. National Guard can provide emergency communications for first responders should local systems be damaged by a disaster event.

228th Signal Brigade Soldiers role-play the part of a terrorist cell preparing to attack as the North Charleston SWAT team arrives to apprehend them.

rapidly and effectively responding to a disaster event.

This year's Palmetto-CWID had what Finley called more robust communications capabilities which provided Voice over Internet Protocol, internet data connections, video teleconferencing, and radio interoperability packages. All of these systems were tied together with other federal, state, county, and

2007 Palmetto-CWID participants included:

Military

USNORTHCOM
USJFCOM
NGB/JCCC
Coast Guard
SCARNG JOC
437 Air Wing
59th TC AVN Bde
228th Sig Bde
228th MCD
151st Sig Bn
105th Sig Bn
108th Sig Bn
111th Sig Bn
43rd Civil Support Team
GAARNG (Crisis Comms)

State / Local

SC EMD
SC-CIO
Berkley County EOC
Dorchester County EOC
Charleston County EOC
N Charleston First Responders
Beaufort County EOC
Jasper County EOC
McClellanville EOC
Charleston AFB
Amateur Radio

Federal

CIPC
SEAHAWK Task Force
FEMA Region IV MERS

Industry Partners

L3 Communications
Quantum Research
pTEREX
SpecOps Inc.
DataPath
Emmen Aerospace
Verizon Wireless

local systems including commercial industry partners and showcased to the media of South Carolina for dissemination to the public.

MAJ Bell is a S.C. National Guard Historian.

Saving lives: Reservists learn combat skills

By Jacqueline Boucher

Tobyhanna Pa. —Army Reservists here learned to administer emergency medical care to frontline warfighters during a three-day battle assembly.

Twenty-eight Bravo Company Soldiers participated in a Combat Lifesaver Course May 4-6 acquiring skills to augment the number of combat medics in the field. The course teaches basic medical skills via classroom study and hands-on training.

"Not every Army unit has a medic," said CPT Shane Abell, Bravo Company commander, 392nd Signal Battalion. "Soldiers are taught to provide the initial care to those wounded in the field until help arrives or the person can be transported."

The combat lifesaver is trained to provide immediate care that can save a casualty's life, such as stopping severe bleeding, administering intravenous fluids to control shock and performing needle chest decompression for a casualty with tension pneumothorax [buildup of air around the lung(s)].

"I had never heard of it before, but now I know how to stick a needle into someone's chest cavity," said SPC Charles Romito, after learning how to relieve a tension pneumothorax during the course.

To help the Soldiers prepare for the rigors of war, instructors assigned to the 339th Combat Support Hospital, Coraopolis, provided the annual training via a condensed version of the 40-hour course.

"This was the most thorough training, of this kind, that I've ever attended," Romito said. "They covered everything and provided lots of opportunities to learn using hands-on practical applications."

CPT Shane Abell inserts a needle into SPC Laura Wellman's arm while learning how to initiate a saline lock and intravenous infusion. Wellman is an information systems specialist.

Members of Bravo Company practice evacuating a casualty using a SKED, or improvised litter.

Romito and SSG Brian Davis have deployed to Southwest Asia in support of the war on terrorism. After the course, the men expressed confidence in their new lifesaving abilities in the event they were to deploy again.

Davis is the company's information technology manager and Romito is the assistant training sergeant.

"We can't stress enough to our students just how important these classes are," said 1LT Carl Kusbit, officer-in-charge of the CLS program. "We mainly instruct those Soldiers who are mobilizing to Iraq, and who have little to no knowledge of lifesaving medical skills."

He admitted that they teach a lot of information in a short period of time, but the Soldiers do well. Once initially certified, Soldiers have a mandatory retest every following year to ensure they've retained the knowledge.

"This was really good training," Davis said. "Training like this helps alleviate fears so you can act."

Students also learned that up to

SSG James Hummer, transmission systems section chief, reviews information in the Combat Lifesaver Course study guide during annual training.

90 percent of combat deaths occur on the battlefield before the casualties reach a medical treatment facility. Some conditions, such as bleeding from a wound on an arm or leg, tension pneumothorax, and airway problems can be treated on the battlefield.

It has been estimated that the proper use of self-aid, buddy-aid and combat lifesaver skills can reduce battlefield deaths by 15 percent.

"I think everybody got a lot out of the course," Abell said. "We got a chance to see and use some of the newer technology being employed in the field today."

Course graduates carry a small aid bag containing supplies for controlling bleeding, initiating saline lock and intravenous infusion, and other procedures. A saline lock is a catheter inserted into the vein so an IV can be quickly established when necessary.

During the course, Kusbit observed that Bravo Company was one of the more inquisitive and interactive groups he'd seen.

"The skills that we teach Soldiers are very advanced lifesaving skills that can one day save the life of a Soldier in combat," said the lieutenant. "As for the Soldiers we taught at the 392nd, they did very well."

Tobyhanna Army Depot is the Defense Department's largest center for the repair, overhaul and fabrication of a wide variety of electronics systems and components, from tactical field radios to the ground terminals for the defense satellite communications network. Tobyhanna's missions support all branches of the Armed Forces.

Tobyhanna Army Depot is part of the U.S. Army Communications-Electronics Life Cycle Management Command. Headquartered at Fort Monmouth, N.J., the command's mission is to research, develop, acquire, field and sustain communications, command, control, computer, intelligence, electronic warfare and sensors capabilities for the Armed Forces.

Ms. Boucher is with the Tobyhanna Public Affairs Office, Tobyhanna Army Depot, Tobyhanna, Pa.

Connecting LRC and TYAD

Robert Ashe (second from left) of the Product Manager, Defense Wide Transmission Systems – part of the Program Executive Office, Enterprise Information Systems' Project Manager, Defense Communications and Army Transmission Systems– trains personnel from the Communications Electronics Life Cycle Management Command Logistics Readiness Center and Tobyhanna Army Depot in how to set up and use Combat Service Support Very Small Aperture Terminals on Sept. 26, 2007, at Fort Monmouth, N.J. The CE-LCMC is preparing to start providing logistics support for CSS VSATs, commercial-off-the-shelf satellite terminals which allow Soldiers in the logistics, medical, biometrics, and personnel arenas to share documents, pass requisitions, collaborate and conduct meetings online, and make voice-over-internet-protocol telephone calls, all without moving from their location, eliminating "sneaker net" – the often-dangerous need to get in a convoy to hand-carry re-supply or spare parts orders on floppy disks. The personnel Ashe trained are (left to right) Michael Bednar of TYAD; Wayne LaFerrara, David Lee and Richard Kirk of the LRC; and Ric Budgeon of TYAD.

DEPOT REPAIRS BATTLE-DAMAGED EQUIPMENT

By Jacqueline Boucher

TOBYHANNA ARMY DEPOT, Pa. — Tobyhanna employees work around the clock to ensure military members are equipped to carry out their mission in the war on terrorism by performing three repair programs.

Reset, overhaul and recapitalization programs are being used here to restore equipment damaged in Southwest Asia. Each program represents different degrees of work performed and the fund used to finance individual projects.

"This year is the most dynamic in regards to workload. Right now the focus is to get the equipment back into the hands of the

warfighter," said Ron Neher, Commodity Workload Analysis Branch chief, Production Management Directorate.

The thousands of systems and pieces of equipment maintained by depot technicians generally fit into one of the three programs; Recap is the highest level of repair, followed by overhaul then reset. The type of work needed dictates the repair program.

Reset, the lowest level of repair, returns systems and equipment to their pre-deployment operational readiness. The objective is to restore the items as quickly as possible with minimal repair.

"Reset means the item will operate to full, mission capability, but with little cosmetic improvements," said Pat Esposito, PM director. "We work with each customer to ensure we satisfy their work requirements."

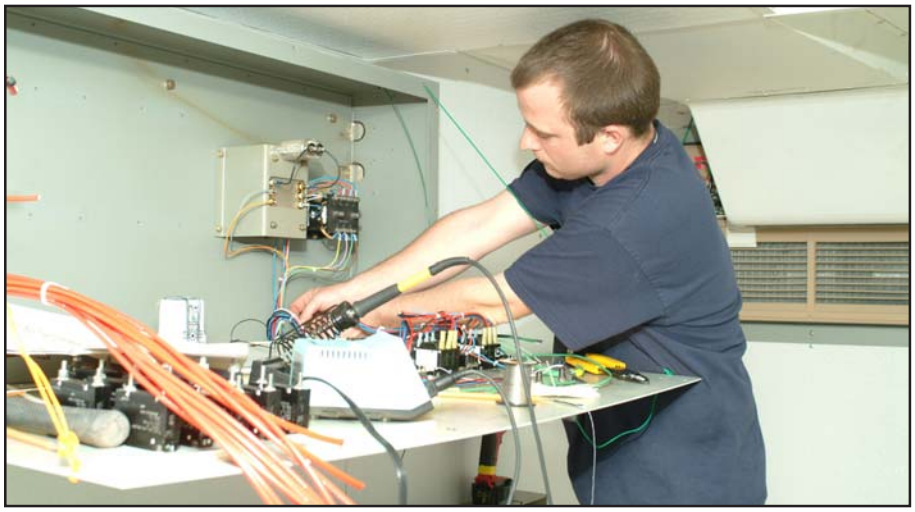
Tobyhanna performs reset work in the field as well as at the depot. The Forward Repair Activities meet the strict definition of reset work based on available resources; however, the depot is afforded the opportunity to work with the customer and perform more of an overhaul repair as long as it doesn't interfere with mission requirements, according to Neher.

"Tobyhanna hasn't missed a fielding for the reset program to date," Esposito said. "The employees have been fantastic. Depot personnel are getting the metal out the door by working three shifts, seven days a week with overtime. Morale is high and each person is proud of the work they're doing…proud to support the warfighter."

Reset projects include the AN/TRC-170 Digital Troposcatter Radio System, AN/ALQ-144 (V) Infrared Countermeasures and Firefinder radars. The two models of Firefinder are the AN/TPQ-36, a highly mobile radar set capable of detecting weapon projectiles, and the AN/TPQ-37, which quickly locates long-range artillery and rocket launcher positions.

Overhaul has two main compo-

Donna Albrect, front, adjusts the high power amplifier on an AN/TSC-93C while Paula Brodie programs the digital data modem. A partnership between Tobyhanna and the Marine Corps to Reset and upgrade communications terminals links warfighters to the United States via satellite. Albrect and Brodie are electronics mechanics in the Communications Systems Directorate.



Daniel Gebhardt, electrical worker, wires a 400-cycle direct current power distribution box on the AN/ASM-189 Electronics Shop Van as part of the Recap program. Gebhardt works in the Systems Integration and Support Directorate.

nents —electrical and mechanical. Electrical repairs include diagnosing equipment failures and replacing defective components. Mechanical repairs include full restoration to like-new condition.

"Overhaul is a slightly higher standard (than reset) often with mandatory parts replacements," Esposito said, explaining that the repair process includes sandblasting, cleaning, priming and repainting of an asset.

For example, when a Tactical Satellite Communications Terminal is overhauled, employees remove all shelter components, and test and repair all internal wiring and cable harnesses. In addition, mechanical defects are repaired and the shelter is completely repainted.

"Operationally, TACSAT terminals are one of the first systems deployed on the battlefield and function as the communications backbone for tactical communications," said Richard Woodworth, director of Communications Systems Directorate.

Recap, the highest level of repair, returns items to "zero hours/zero miles condition" with enhanced capabilities. Systems are repaired to full overhaul standard and include upgrades such as installing new components with improved performance or additional testing. Program goals include extend the service life of equipment or systems, reduce operating and support costs, and improve reliability, safety and maintainability.

"The items are returned to the user in brand-new condition," Neher said. "When it goes out the door, it's like having a car with zero miles."

The depot performs Recap work on both Firefinder radar systems and the electronic shelters and vans.

Tobyhanna's five recapitalization programs include the AN/TPQ-36 Firefinder and the AN/ASM-146 and 147 electronics shelters, and AN/ASM 189 and 190 vans, according to Robert Katulka, director, Intelligence, Surveillance and Reconnaissance Directorate.

"For the Firefinder Recap, Tobyhanna's work effort includes a higher level of testing, greater number of mandatory parts to be replaced and the integration of upgraded components from the Sentinel Radar which provides improved performance for the warfighter," Katulka said. "The end result is that a Recapitalized Firefinder Radar from Tobyhanna will have an extended life cycle, improved performance and reduced operating cost. It will be better than new."

Employees recently restored over 1,000 shelters and vans through the Army's Electronic Shop Van Recapitalization Program. Four years into the program, the depot has repaired more than 700 AN/ASM-146 and 147 shelters and more than 300 AN/ASM-189 and 190 vans.

The AN/ASM-146s and 189s are the primary maintenance facilities for the entire Army electronics maintenance mission in combat service support units. The AN/ASM-147s and 190s are mobile shelters and vans, respectively, which provide accessible, forward-based storage of spares for the systems repaired in the 146 and 189 shelters and vans.

The Army has spent billions this year to ensure Soldiers have the best systems and equipment to perform their mission. The combination of available money and around-the-clock work has enabled the Army to increase the pace of refurbishment of equipment that's damaged or worn out from service in Afghanistan and Iraq, according to testimony given before a joint U.S. House committee on Capitol Hill earlier this year. Congress allocated a $17.1 billion supplemental at the beginning of fiscal year 2007, and the Army obligated $9.8 billion for reset, $4 billion for depot and field-level repair, while $5.8 billion was allocated for new procurements.

"No matter what program we're working, we're always going to give a little extra," Esposito said. "The depot always takes it a step or two further—it's what the customer expects from Tobyhanna."

Tobyhanna Army Depot is the Defense Department's largest center for the repair, overhaul and fabrication of a wide variety of electronics systems and components, from tactical field radios to the ground terminals for the defense satellite communications network. Tobyhanna's missions support all branches of the Armed Forces.

Tobyhanna Army Depot is part of the U.S. Army Communications-Electronics Life Cycle Management Command. Headquartered at Fort Monmouth, N.J.

Ms. Boucher is a Public Affairs Specialist with Tobyhanna Army Depot, Tobyhanna, Pa.

Lean improves Sidewinder repair process

By Jennifer Caprioli

TOBYHANNA ARMY DEPOT, Pa. — A switch at Tobyhanna Army Depot from a complete Sidewinder overhaul process to 'repair only as necessary' saves time and money.

For the past seven years, Sidewinder Missile Branch personnel have completely overhauled the AIM-9(M) Sidewinder guidance and control sections for the Air Force, Navy, and foreign military sales. In response to a critical parts shortage, the depot developed an alternative to reduce parts consumption.

"With the customers' approval, instead of overhauling each GCS, we in the Sidewinder branch would implement an inspect-and-repair-only-as-needed program," said Branch Chief Wayne Watkins. The branch is part of the Command, Control and Computer/Avionics System Directorate's Tactical Missile Division.

The AIM-9(M) Sidewinder is carried by fighter aircraft and is a supersonic, heat seeking, air-to-air missile, which consists of a high-explosive warhead and a dynamic infrared guidance system. The missile works by homing onto the infrared emissions from jet exhaust. According to the Navy, it is the most widely used air-to-air missile in the West.

When the guidance and control

(Above) The Sidewinder missile guidance and control section repair process begins in the Sidewinder Branch induction cell. The GCS are tested and inspected for any obvious damage before being sent to the diagnostic cell for further testing and evaluation.

Matthew Butash, electronics worker (student trainee) at Tobyhanna Army Depot, repairs an AIM-9(M) Sidewinder missile guidance and control section in the pre-final area of the shop.

mission began in 2000, Tobyhanna would disassemble and then troubleshoot each GCS. Because of the changes the Sidewinder branch would be executing. Productivity Improvement and Innovation was contacted to help organize the shop's workflow. Since April the Sidewinder branch has participated in five Lean events, and have already cut the average repair cycle time.

By removing non-value added steps for repairing the GCS, workers were also able to cut their manual cycle time. "Under the old overhaul process we worked about 70 hours per missile. Under the new process we work about 28 hours on each missile," Watkins says.

"Going from overhaul to repair is effective because now we're addressing a specific issue," says Robert Kinsey, an electronics mechanic in the Sidewinder Missile Branch.

"We previously worked more than 600 hours of overtime," says Watkins. "Under the new program we did not use any overtime." The branch's goal is to repair 150 missiles per month.

The team had five goals in mind as they planned each Lean event. They wanted to reduce parts consumption, repair cycle time, manual cycle time, and cost. They also want the missiles to last until 2028. "We decided we would analyze the missile as soon as it's brought in," says Kinsey, "because it is what the customer wants and because we use fewer parts."

The initial Lean event focused on Value Stream Analysis and was implemented April 9-12. Through analysis, the Sidewinder Branch and Lean team discovered it could save time and parts by troubleshooting first and then performing a teardown on the GCS, if needed.

"We mapped out the current process and then mapped out the future process. We found the results would be dramatic," said Watkins.

The second Lean event was held April 23-26, and this time the Sidewinder team's focus was on baseline testing, implementing process data sheets and completing process flow sheets. These sheets accompany each missile during every step in the process: induction, leak and flow, boresight, rate table, final assembly, and the clean room.

Their research found that only defective missiles required work in the clean room. By removing this non-value added step the shop saves time and parts. "There is a six minute sixteen hour reduction, if the GCS's seeker doesn't go through the clean room," says Watkins.

The third event, May 21-24, focused on the induction cell; during this event the team developed a standard tools list for each of the six cells, which reduces the time spent looking for tools. They also eliminated waste by creating signs, rearranging cells, and installing organized storage bins.

The Sidewinder branch had their fourth Lean event June 18-21. This event focused on the clean room. They rearranged the room to accommodate the switch from overhaul to the IROAN program. During this event they also developed a standard tool list for each cell.

The Sidewinder Branch completed their fifth event the end of July. This event consisted of eliminating the non-value added steps in the diagnostic cell area and analyzing the diagnostic success rate.

Three more events are scheduled. The events will focus on repair cell standard work, pre-final and final standard work, and process and planning for the floor plan

layout.

"They need the Lean events to reduce their flow time and manual cycle time. By increasing output, it gives the shop the opportunity to bring more work in," says Christopher Simko, a process improvement specialist in the depot's Process Improvement Division, Productivity, Improvement and Innovation Directorate.

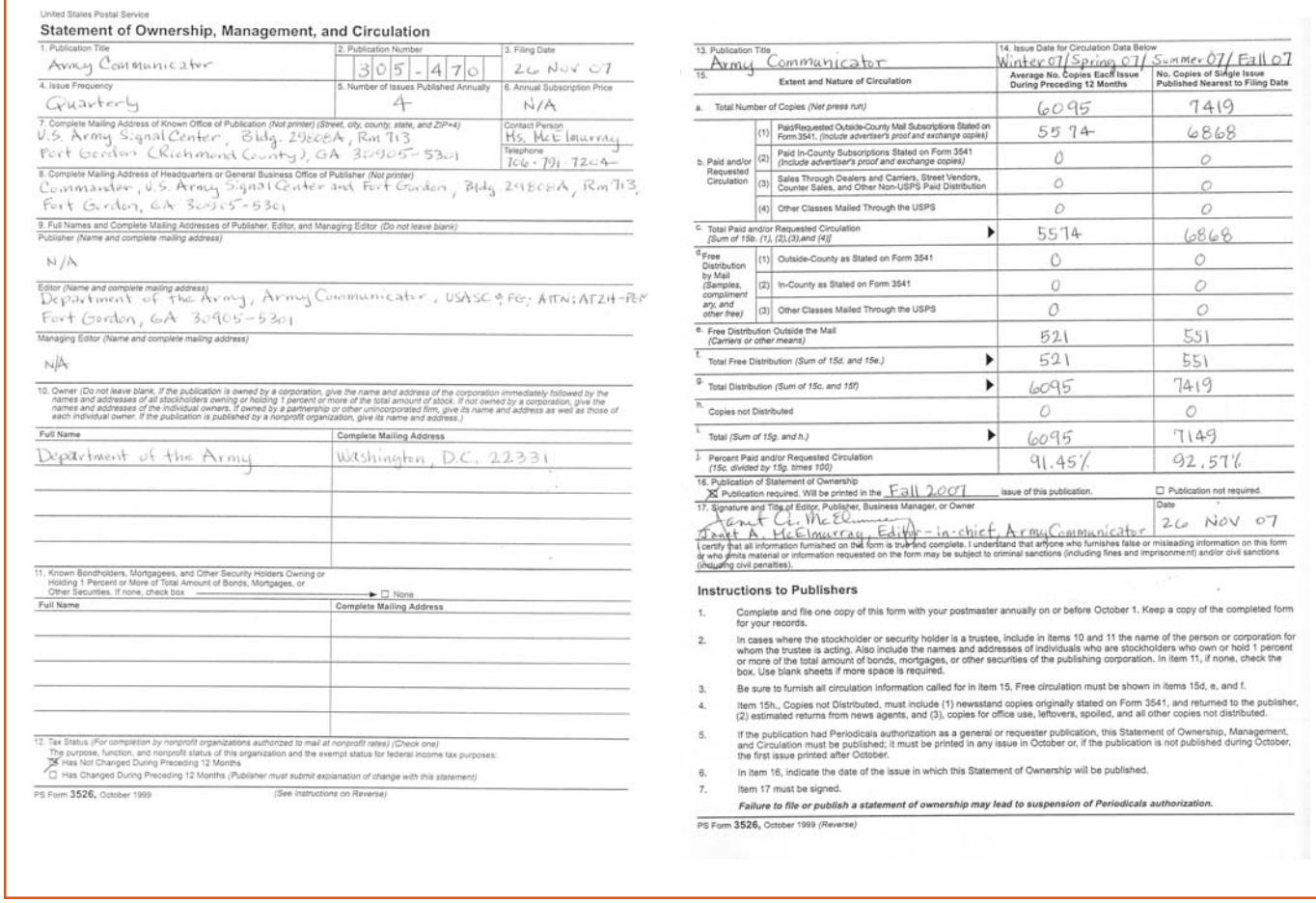
Through a database managed by the Information Management Directorate, successes and failures of the missiles are traceable.

The customer will track missiles by serial number then inform Tobyhanna if any fail. "Tracking is useful because it gives us feedback to make sure our product isn't bad," says Watkins, "and we want to make sure we're producing a good product."

Ms. Caprioli is a writer with the Tobyhanna Army Depot Public Affairs Office, Tobyhanna, Pa.

Acronym QuickScan

4R – Rigor, Relevance, Relationships, and Results
ANA – Afghan National Army
APC – Area Processing Centers
C4 – command, control, communications, and computers
CLC – Combat Lifesaver
CWID – Coalition Warrior Interoperability Demonstration
DFAC – Dining Facility
ESB – Expeditionary Signal Battalions
ESTA – Enterprise Systems Technology Activity
ESV – Electronic Shop Van
IT – Information Technology
FMS – foreign military sales
GCS – guidance and control sections
IROAN – inspect-and-repair-only-as-needed
JICSCC – Joint Incident Site Communications Capability
MOD – Ministry of Defense
MRX – mission rehearsal exercise
NATO – North Atlantic Treaty Organization
NCO – Non-commissioned Officers
NETCOM – Network Enterprise Technology Command
PfP – Partnership for Peace
PM – Production Management
SHAPE – Supreme Headquarters Allied Powers Europe
SIT – School of Information Technology
SC – South Carolina
SES – Senior Executive Service
TACSAT – Tactical Satellite Communications
USARPAC – United States Army Pacific
VoIP – Voice Over Internet Protocol
U.S. – United States



United States Postal Service
Statement of Ownership, Management, and Circulation

1. Publication Title	2. Publication Number	3. Filing Date
Army Communicator	305-470	26 Nov 07
4. Issue Frequency	5. Number of Issues Published Annually	6. Annual Subscription Price
Quarterly	4	N/A

7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and ZIP+4): U.S. Army Signal Center, Bldg. 29808A, Rm 713, Fort Gordon (Richmond County), GA 30905-5301 — Contact Person: Ms. McElmurray; Telephone: 706-791-7264

8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer): Commander, U.S. Army Signal Center and Fort Gordon, Bldg 29808A, Rm 713, Fort Gordon, GA 30905-5301

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank)
Publisher (Name and complete mailing address): N/A
Editor (Name and complete mailing address): Department of the Army, Army Communicator, USASC & FG: ATTN: ATZH-PEM, Fort Gordon, GA 30905-5301
Managing Editor (Name and complete mailing address): N/A

10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)

Full Name	Complete Mailing Address
Department of the Army	Washington, D.C. 22331

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box → ☐ None

Full Name	Complete Mailing Address

12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one)
The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:
☒ Has Not Changed During Preceding 12 Months
☐ Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)

PS Form 3526, October 1999 (See Instructions on Reverse)

13. Publication Title: Army Communicator	14. Issue Date for Circulation Data Below: Winter 07/ Spring 07/ Summer 07/ Fall 07	
15. Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)	6095	7419
b. Paid and/or Requested Circulation (1) Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541. (Include advertiser's proof and exchange copies)	5574	6868
(2) Paid In-County Subscriptions Stated on Form 3541 (Include advertiser's proof and exchange copies)	0	0
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	0	0
(4) Other Classes Mailed Through the USPS	0	0
c. Total Paid and/or Requested Circulation (Sum of 15b. (1), (2),(3),and (4))	5574	6868
d. Free Distribution by Mail (Samples, complimentary, and other free) (1) Outside-County as Stated on Form 3541	0	0
(2) In-County as Stated on Form 3541	0	0
(3) Other Classes Mailed Through the USPS	0	0
e. Free Distribution Outside the Mail (Carriers or other means)	521	551
f. Total Free Distribution (Sum of 15d. and 15e.)	521	551
g. Total Distribution (Sum of 15c. and 15f)	6095	7419
h. Copies not Distributed	0	0
i. Total (Sum of 15g. and h.)	6095	7149
j. Percent Paid and/or Requested Circulation (15c. divided by 15g. times 100)	91.45%	92.57%

16. Publication of Statement of Ownership
☒ Publication required. Will be printed in the Fall 2007 issue of this publication. ☐ Publication not required.

17. Signature and Title of Editor, Publisher, Business Manager, or Owner: Janet A. McElmurray, Editor-in-chief, Army Communicator — Date: 26 Nov 07
I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

Instructions to Publishers

1. Complete and file one copy of this form with your postmaster annually on or before October 1. Keep a copy of the completed form for your records.
2. In cases where the stockholder or security holder is a trustee, include in items 10 and 11 the name of the person or corporation for whom the trustee is acting. Also include the names and addresses of individuals who are stockholders who own or hold 1 percent or more of the total amount of bonds, mortgages, or other securities of the publishing corporation. In item 11, if none, check the box. Use blank sheets if more space is required.
3. Be sure to furnish all circulation information called for in item 15. Free circulation must be shown in items 15d, e, and f.
4. Item 15h., Copies not Distributed, must include (1) newsstand copies originally stated on Form 3541, and returned to the publisher, (2) estimated returns from news agents, and (3), copies for office use, leftovers, spoiled, and all other copies not distributed.
5. If the publication had Periodicals authorization as a general or requester publication, this Statement of Ownership, Management, and Circulation must be published; it must be printed in any issue in October or, if the publication is not published during October, the first issue printed after October.
6. In item 16, indicate the date of the issue in which this Statement of Ownership will be published.
7. Item 17 must be signed.

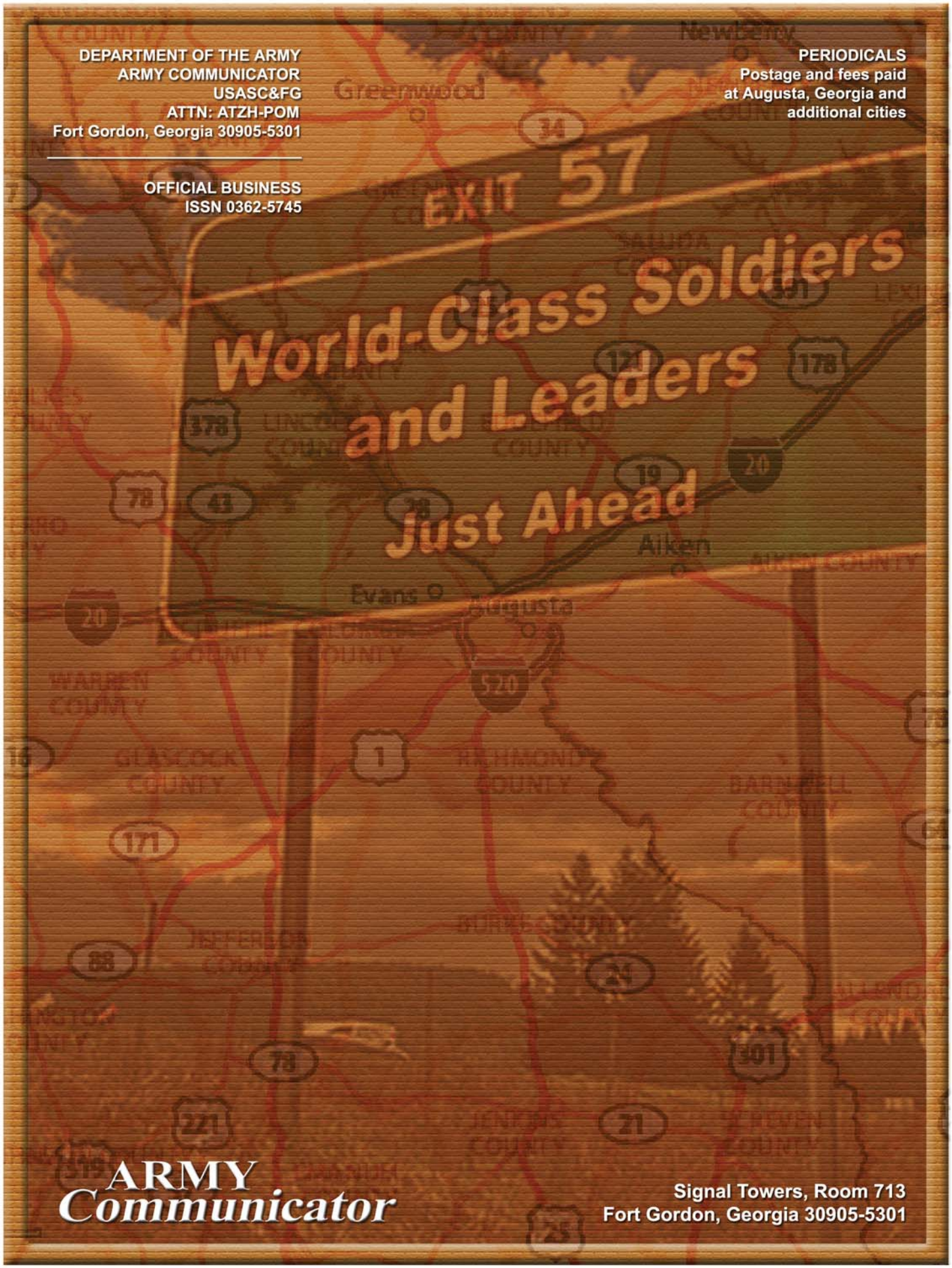
Failure to file or publish a statement of ownership may lead to suspension of Periodicals authorization.

PS Form 3526, October 1999 (Reverse)

DEPARTMENT OF THE ARMY
ARMY COMMUNICATOR
USASC&FG
ATTN: ATZH-POM
Fort Gordon, Georgia 30905-5301

OFFICIAL BUSINESS
ISSN 0362-5745

PERIODICALS
Postage and fees paid
at Augusta, Georgia and
additional cities



ARMY Communicator

Signal Towers, Room 713
Fort Gordon, Georgia 30905-5301

PIN: 084188-000